COMMAND AND CONTROL

The more fluid the battlefield, the more important and difficult it will be to identify decisive points and to focus combat power there…. Communications will be interrupted by enemy action at critical times…. Subordinate leaders will be expected to act on their own initiative within the framework of the commander's intent.

FM 100-5, 1986

Command and control is the process of directing, coordinating, and controlling the unit to accomplish the mission. The purpose of command and control is to implement the commander's will in pursuit of the unit's objective. Command and control is both a system and a process. At company level, the system consists of the personnel, equipment, procedures, and concepts that carry out the C2 process. The essential component for both the process and the system is leadership. Effective mission–oriented C2 is critical to success in battle. A detailed discussion of the key concepts and principles for M–OC2 is in Section I. The following historical vignette clearly depicts the critical importance of many of these fundamentals.

During operation "Just Cause" in Panama in December 1989, Company A, 4th Battalion, 17th Infantry was assigned the mission of seizing the PDF barracks at Fort Espinar to prevent the PDF infantry company from deploying into their combat positions. The objective consisted of two multistory concrete buildings. These buildings were surrounded by a chain link fence built on top of a 2-foot high brick wall. Approximately 95 PDF soldiers armed with small arms, machine guns, and RPG-18 antitank rocket launchers actually occupied the buildings, although the company commander had been told to expect from 150 to 160 enemy.

The commander's concept was to isolate and suppress the objective with a support element consisting of one rifle platoon, a smaller fire support position consisting of an M60 machine gun team secured by three riflemen, and a third position occupied by the company's antitank section and a towed Vulcan 20-mm ADA gun. The three separate support positions were necessary in order to obtain the right firing angles against the objective's two main buildings, and to isolate the objective area.
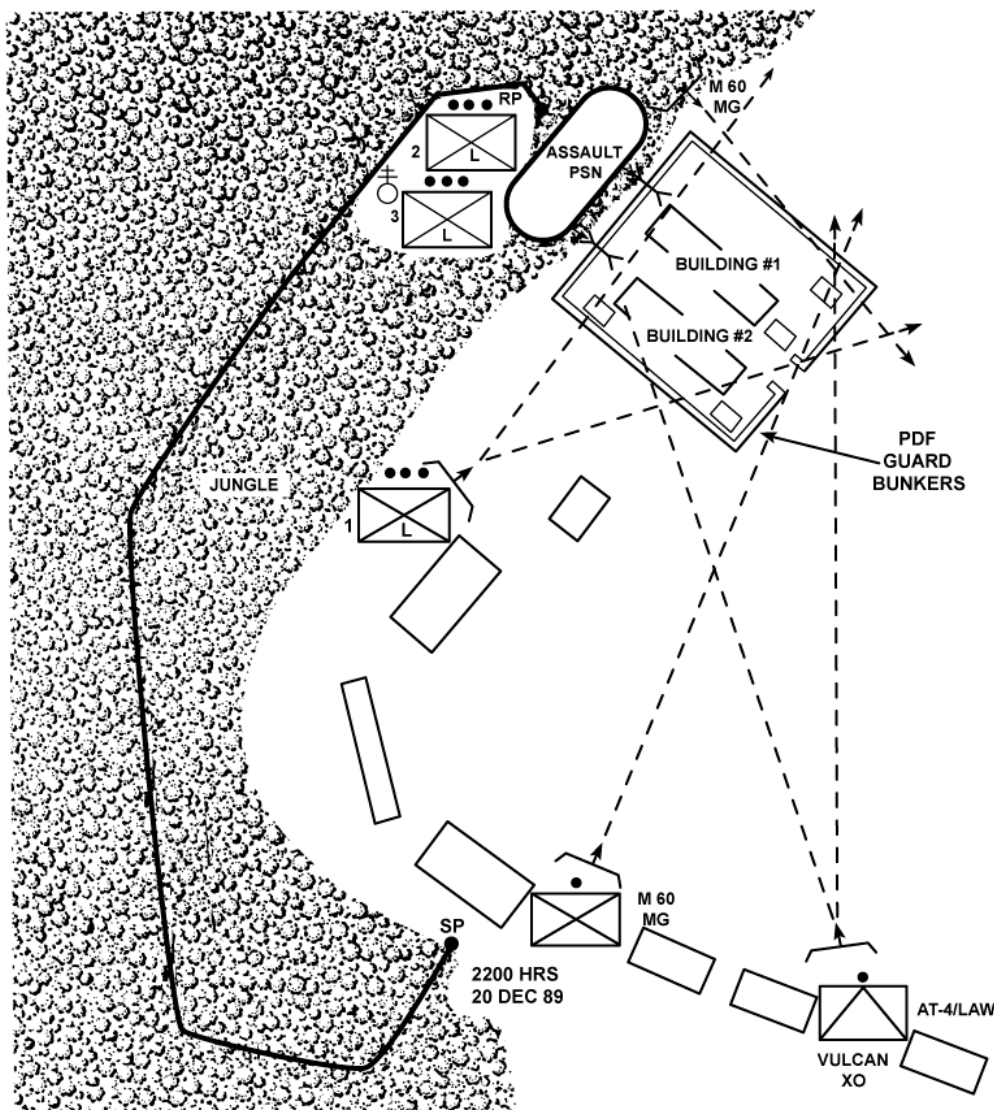
Diagram of the objective area.

The company XO was designated the support element leader while the CO went with the assault element (company main effort). The support element's mission was to suppress the enemy within the barracks complex to allow the breach element to breach the obstacle. The commander's intent (the purpose) for this element was to support the breach element's successful breach of the fence. The support element was also tasked to isolate the objective area and provide suppressive fires to allow the assault element to clear the objective. The XO's instructions were to initiate fires against the PDF barracks at H–hour minus two minutes. (Radio listening silence had been imposed.) He was to fire for two and one–half minutes and then cease fire while a recorded surrender request was broadcast. The breach element needed this suppressive fire to support its move from the assault position up to the designated breach positions and to prepare their demolitions.

The element of surprise was lost about 26 minutes before H–hour when shooting started at Coco Solo, about two miles away. About 10 minutes later, firing started at

another building on Fort Espinar as a platoon from an adjacent battalion was moving into its position.

The XO was under pressure from soldiers in the fire support element to initiate their fire early since the PDF were obviously alerted. He resisted this pressure and repeatedly cautioned the soldiers around him to hold their fire. At the exact preplanned time, he initiated the support element's fires.

The XO understood that the battalion commander's intent for the company (the purpose) was to prevent the deployment of the PDF company into their combat positions. Since he could observe the gate, he could initiate fires if the PDF began to deploy. He also knew that his purpose (his commander's intent) of the fire was not to inflict the maximum casualties on the PDF, it was to cover the movement of the breach element as it moved forward to prepare the bangalore in the enemy's obstacles. If he had initiated fire early, he would not have helped the breach/assault element still moving in the jungle. As it was, his timing was perfect. The assault element had just reached the edge of the jungle when the XO opened fire. They were able to move undetected up the steep slope to the compound under excellent suppressive fires.

As a result of the XO's proper decision, the mission was accomplished with near perfection. The company captured 84 enemy soldiers and killed several. Company A suffered no casualties and was ready to continue combat operations immediately following this action.

The actions of Company A provide an excellent example of many of the key fundamentals of mission–oriented command and control. The utility of the commander's intent is clearly evident as is the need to understand the intent of both higher commanders (two levels up). By clearly stating the assigned missions (task and purpose) for their subordinates in his concept, each commander ensured his subordinates were able to effectively use their initiative during the conduct of decentralized operations. In addition, the identification of the main effort provided the focus for all other subordinates to base their actions on. Because these commander's used effective mission orders, they were able to depend on their subordinates to make the proper decision allowing the commander of Company A to command well forward and locate himself at the decisive point with his main effort.

Section I. COMMAND AND CONTROL SYSTEM

The company's command and control system must be reliable, responsive, and durable. It must withstand crises, even the loss of the commander, and still continue to function. Although it is the most complex system in the company, the result must be clear, concise instructions that focus the entire unit toward the company's objective. This section describes the structure and key concepts of the command and control system.

2-1.   DEFINITIONS

Success in battle will require a combination of command and control. The proper mix of command and control is determined by the situation, but commanders must emphasize command and reduce control measures that restrict their subordinate's freedom of action.

   a.   **Command.** Command is the process that instills the commander's will among his subordinates. It provides focus and direction to the company. The commander's leadership is an integral part of command.

b. **Control**. Control, as the counterpart of command, follows up a decision and minimizes deviation from the commander's concept. Control provides supervision to the operation while synchronizing all systems and activities.

c. **Synchronization.** Commanders must avoid depending on close control of their units to achieve synchronization. This slows execution and limits their subordinates' initiative. Synchronization is maintained during execution by the proper decision of subordinates. A clear understanding of the commander's intent and a simple effective concept are the keys to maintaining synchronization.

2-2. COMMANDER'S LEADERSHIP

Leadership is the critical element of both combat power and the command and control system. Through leadership the commander causes his unit to complete demanding tasks in difficult situations. Commanders must understand the military leadership philosophy in FM 22-100. In addition, the following factors are key to the company commander's ability to lead his company on the AirLand battlefield.

a. **Will.** Often the victor in battle is the unit that refuses to lose. Competent leaders and tough, realistic training are the keys to developing this determination. The CO must develop a "will to win" in his soldiers and his company.

b. **Trust**. The CO must earn the trust of his men. They must have confidence in his abilities. He must also trust his soldiers and develop a command climate that allows subordinates to make decisions.

c. **Delegation.** After ensuring his subordinates are well trained, the CO must delegate the proper authority and freedoms to his men. The CO focuses his time and energy on what is critical and delegates the remainder to his subordinates.

d. **Discipline**. The CO instills discipline in his soldiers. Discipline ensures proper standards are maintained in the absence of leader supervision. The decentralized operations, which the company routinely conducts, require self–discipline of every soldier in the company.

2-3. MISSION–ORIENTED COMMAND AND CONTROL

Mission–oriented command and control is the Army's doctrinal approach to C2 on the AirLand battlefield. It is a method of directing military operations that encourages and expects subordinates to take action consistent with the intent and concept of higher headquarters. The following principles provide the fundamentals for M-OC2.

a. **Expect Uncertainty**. The commander must understand the environment of combat; the battle will be dynamic and nonlinear. Communications will be degraded, and the chaos of battle will often prevent the commander from knowing what is happening beyond his own senses. The situation during planning will always change before execution.

b. **Reduce Leader Intervention**. Plan and direct operations to require the absolute minimum intervention during execution. When soldiers expect the commander to make the decision or initiate the action, they are reluctant to take action. When precise control is required for synchronization, such as an on-order task, the commander should also provide the subordinate the criteria for making the decision. Leaders must realize that some loss of precision is better than inactivity.

c. **Increase Subordinate Planning Time**. The CO ensures the effective use of all available planning time. Although the majority of the planning takes place at company level, the squads and platoons require extra time to conduct their rehearsals and inspections. SOPs and warning orders are key tools for using time well.

d. **Give Subordinates Maximum Freedom of Action.** Given the expected battlefield conditions, leaders at every level avoid unnecessary limits on their soldiers' freedom of action. The leader at the point of decision must have the knowledge, the training, and the freedom to make the correct decision that supports the commander's intent.

e. **Command/Lead Well Forward**. The commander locates where he can best fight his company. This is determined by a number of factors. His leadership is most effective face-to-face when he can see the situation and his soldiers can see him. Since he can not be everywhere, the CO focuses on the decisive action that will accomplish his mission. He normally locates with his main effort (the subordinate unit assigned the decisive action) to provide his leadership and to be in a position to shift or retask the main effort.

2-4. COMMANDER'S INTENT

Knowing the commander's intent enables subordinates to use their initiative during the execution of an operation. Clear and concise terms are used to state the intent to ensure understanding throughout the force. It must be clearly understood by all means of communication; written, face–to–face, or spoken via radio or land line. The relationship between the battalion commander's intent for the company, the company's role in his concept, the designation of the main effort, and the development of the CO's concept and assignment of his subordinate's intent is the focus of mission orders.

a. **Intent.** Intent is defined as the result the commander expects the unit to accomplish in a specific operation. At the lowest tactical levels (company and below), intent is normally the purpose from the mission statement. As such, it is assigned by the battalion commander when he determined the company's mission statement. This mission statement consists of the mission essential task to be accomplished and the purpose (result) it achieves.

b. **Commander's Concept**. When the battalion commander develops his concept, he determines the mission for the company. He first determines the purpose the company must achieve and then assigns the task(s) he feels will achieve that purpose. During the fight, if the assigned task will not achieve the purpose, the CO is expected to retask the company to achieve it. Soldiers should make every effort to inform their commander of their actions, but they must not wait for an order to act. Another example of how the assigned purpose/intent guides actions could be: During execution, the CO sees the opportunity to achieve his assigned purpose faster or less costly by acting now. When making this decision, he must consider what his company's role is within his commander's concept. He must make every effort to operate within the framework of the battalion commander's concept because it provides the synchronization and concentration of combat power for the operation. If he determines that his actions will not jeopardize the unit or the mission, then in the absence of communications he must act.

c. **Concept Development**. To accomplish the assigned mission, the CO assigns missions to his platoons and sections. Just as the battalion commander assigned company missions and designate d his main effort, the CO does the same for the company. He also

ensures that his concept fits within the battalion commander's concept. This results in a unity of effort but supports decentralized execution. At each level, the commander is given his mission by his superior, develops a concept to accomplish the mission, organizes his unit to fight the concept, and assigns each subordinate his responsibilities. The vehicle for providing this information is the OPORD.

d. **Main Effort**. The platoon with the most important task in the CO's concept is designated the main effort. This unit is the focus; all other units support the quick success of the main effort. Success by the main effort should result in the accomplishment of the commander's mission. When considering independent action, each leader makes his decision based on his relationship to the main effort. The linkage between supporting and main efforts must be maintained except in extraordinary cases, such as when a leader of a supporting effort sees the chance to accomplish the purpose of the main effort. This leader asks the question, "What would my commander do if he knew what I know?" Since the proper response would be to shift the main effort to this leader's unit, he should immediately retask himself and accomplish the purpose that was assigned to the main effort. If the original main effort leader was informed or became aware of this development, he should determine how to best support the new main effort, retask himself, issue a FRAGO to his soldiers, and join the fight.

2-5. MISSION ORDERS

AirLand Battle doctrine requires the use of mission-type orders. Mission orders focus on what tasks must be accomplished without specifying how they will be done. Whenever possible, they are oral orders issued face-to-face on the ground where the fight will take place. Mission orders require well–trained subordinates who understand their commanders' intent and concepts (two levels higher).

a. Mission orders address only the required information. Avoid unnecessary detail and redundancy; do not restate doctrine or SOPs. Develop unit SOPs that reduce the length of orders; use clear and concise terms and graphics. FM 101-5-1 is the doctrinal source for terms and graphics, every leader in the unit must understand these.

b. The commander determines exactly what he wants his platoons to accomplish and clearly communicates these requirements to them. If one of his leaders has not earned his trust or has not displayed the tactical competence to operate with a mission order, then the order must be tailored, based on the training, experience, and capability of the leader receiving the order.

(1) This may include nothing more than providing additional instructions, establishing more restrictive control measures, or directing a specific use for one of his organic assets, such as positioning one of the grenadiers to block enemy movement up a ravine to prevent the enemy from flanking the platoon's battle position.

(2) Or in an unusual situation, the CO may detail exactly how the platoon leader will employ his entire platoon, clearly state the limits for using his initiative, and collocate himself or the XO with this platoon. This should be only a short-term solution; leaders must be trained to meet their responsibilities.

2-6. DUTIES AND RESPONSIBILITIES OF KEY PERSONNEL

The company must accomplish many different tactical, administrative, and logistical tasks. To accomplish these, the duties and responsibilities of key personnel must be defined, coordinated, and understood.

a. **Company Commander**.

(1) The commander is responsible for everything the company does or fails to do. This includes the tactical employment, training, administration, personnel management, and sustainment of his company. He must know the capabilities of his men and supporting weapons and how to tactically employ them. He must also know the capabilities of the enemy.

(2) The CO exercises command through his subordinate leaders.

(3) The CO employs his company to support the accomplishment of the battalion and brigade missions. He requests additional support from battalion when required.

b. **Executive Officer.**

(1) The XO is second in command. His primary role is to help the commander fight the company. He ensures the tactical reports from the platoons are forwarded to the battalion tactical operations center. The XO may locate where he can maintain communications with the company commander and the battalion TOC. He may require additional soldiers to provide security and provide a CONOPS capability (see Section IV). The XO assumes command of the company as required.

(2) Before the battle, the XO (with the 1SG) plans and supervises the company CSS. They make sure precombat inspections are complete. He plans and coordinates logistical support with agencies outside the company while the 1SG does the same internally. He prepares or assists in the preparation of paragraph 4 of the OPORD. He may also assist the CO in planning the mission.

(3) The XO coordinates with higher, adjacent, and supporting units. He may aid in control of a phase of the battle, such as passage of lines, bridging a gap, breaching an obstacle, or assumption of control of a platoon attached on the move.

(4) The XO may be assigned tactical missions, such as the following:

(a) Landing zone/pickup zone control officer. This may include straggler control or casualty evacuations and resupply operations as well as air/ground liaison.

(b) Quartering party/detachment OIC. The XO may be the OIC of an element consisting of representatives of various company elements. Their purpose is to precede the company and reconnoiter, secure, and mark an assembly area or battle position. Or they remain behind the company to move or secure excess equipment and personnel while the company moves to a new location or conducts combat operations.

(c) Element leader. The XO may be assigned a mission and a task–organized element with which to accomplish it. He may, for instance, control all the company machine guns, the 60-mm mortars, and one rifle platoon as the support element leader in a company raid or attack. Common missions of this nature include—

- Lead the reserve.
- Lead the DLIC during a withdrawal.
- Control attachments to the company.

c. **First Sergeant.**

(1) He is the senior NCO and normally the most experienced soldier in the company. He is the commander's primary tactical advisor and expert on individual and NCO skills.

He assists the commander in planning, coordinating, and supervising all activities that support the unit mission. He operates where the commander directs or where his duties require him.

(2) His specific duties include the following:

(a) Execute and supervise routine operations. This includes enforcing the tactical SOP; planning and coordinating training; coordinating and reporting personnel and administrative actions; and supervising supply, maintenance, communications, field hygiene, and medical evacuation operations.

(b) Supervise, inspect, or observe matters designated by the commander. (For example-observe and report on a portion of the company's sector or zone, inspect the mortar section, or inspect all range cards.)

(c) Assist and coordinate with the XO. Be prepared to assume his duties.

(d) Lead task–organized elements or subunits on designated missions.

d. **Fire Support Officer**.

(1) The FSO helps plan, coordinate, and execute the company's fire support. During planning, he develops a fire support plan based on the CO's concept and guidance. He coordinates the fire support plan with the battalion FSO.

(2) During the planning, the FSO also—

- Advises the CO of the capabilities and current status of all available fire support assets.
- Assists the CO in developing the OPORD to ensure full integration of fires into the commander's concept.
- Designates targets and fire control measures and determines method of engagement and responsibility for firing the targets.
- Determines the specific tasks and instructions required to conduct and control the fire plan.
- Briefs the fire support plan as part of the company OPORD and coordinates with platoon FOs to ensure they understand their responsibilities.
- Integrates platoon targets into the company target overlay and target worksheet. Passes these products to the battalion FSE.

(3) During the battle, the FSO normally locates with the CO. This allows greater flexibility in conducting or adjusting the fire support plan. At times, the FSO may locate away from the CO to more effectively control supporting fires. The FSO informs the CO of key information received on his radio net.

(4) The FSO must understand infantry tactics. This not only provides better fires integration, but if the CO becomes a casualty, the FSO may need to assume control of the operation until the XO is able to.

(5) The FSO may coordinate CAS or NGF, or employ and control the company mortar section.

(6) The FSO ensures the indirect fire plan is part of each company rehearsal.

e. **Communications Sergeant**.

(1) He supervises operation, maintenance, and installation of organic wire and FM communications. This includes sending and receiving routine traffic and making required communication checks.

(2) He supervises the company CP to include relaying information, monitoring the tactical situation, establishing the CP security plan and radio watch schedule, and informing the commander and subordinate units of significant events.

(3) He performs limited troubleshooting of organic communication equipment and provides the link between the company and the battalion for maintenance of communications equipment.

(4) He is responsible for supervising all aspects of COMSEC equipment, to include requesting, receipting, training, maintaining, securing, and employing this equipment and materials.

(5) He advises the CO in planning and employing the communication systems. Based on the CO's guidance, he prepares or assists in preparation of paragraph 5 of the OPORD.

f. **Radiotelephone Operators.**

(1) The RATELO is responsible for operating and performing maintenance on his assigned radio to include preparation for special operations (waterborne, cold weather, airborne, or air assault).

(2) He encodes and decodes messages and makes field expedient antennas.

(3) The RATELO must understand the company mission. In the event the commander becomes a casualty, the RATELO may be the only man on the radio for a time. At these times, he may request and adjust artillery, and request medical evacuation or resupply.

(4) The RATELOs may assist in the preparation of the OPORD by copying the overlays and building sand tables.

g. **Supply Sergeant**.

(1) The supply sergeant requests, receives, issues, stores, maintains, and turns in supplies and equipment for the company. He coordinates requirements with the 1SG and the battalion S4.

(2) When positioned in the battalion field trains, the supply sergeant is supervised by the HHC commander or the support platoon leader. He uses the battalion administrative/logistical radio network to communicate with the company.

(3) He may also control the vehicle and driver when one is provided to the company.

(4) He monitors the tactical situation and anticipates logistical requirements. Chapter 8 has a more detailed discussion of the CSS requirements.

h. **NBC Noncommissioned Officer**.

(1) He assists and advises the company commander in planning NBC operations. He conducts and supervises the NBC training within the company (NBC decontamination and equipment maintenance and operation).

(2) He operates forward with the company CP and assists the communications sergeant with CP operations and security.

(3) His specific duties include the following:

- Provide the commander with unit operational exposure guidance.
- Process and disseminate information on enemy and friendly NBC attacks.
- Monitor and supervise decontamination operations.
- Make recommendations to commander on decon and smoke support.
- Requisition NBC specific items of equipment and supply.

i. **Armorer.**

(1) He performs organizational maintenance on the company's small arms. He evacuates weapons to the DS maintenance unit. Normally, he assists the supply sergeant in the BSA.

(2) He may operate forward with the company CP to support continuous CP operations.

j. **Antiarmor Section Leader**.

(1) He is responsible for employing the antiarmor section.

(2) He must be prepared to execute the following tasks with his section.

(a) Provide antiarmor support to the company during defensive and offensive operations, to include assisting the CO in planning the section's employment, reconnoitering tentative firing positions, and controlling antiarmor fires.

(b) Plan and lead reconnaissance, security, and combat patrol operations.

k. **Mortar Section Leader/Platoon Leader**.

(1) He is responsible for employing the mortar section.

(2) He ensures effective mortar support for the company. He also assists the CO in planning the employment of the mortar section, coordinates with the company FSO/FIST, and controls the section during tactical operations.

2-7. SUCCESSION OF COMMAND

The chain of command provides for the succession of command should leaders become casualties. The normal succession of command in the rifle company is commander, XO, platoon leaders by seniority, other combat arms officers, 1SG, and NCOs by seniority.

a. To reestablish the chain of command, the new commander establishes communications with the battalion and all elements of the company. He informs them of the situation, receives status reports from the company and any new orders from battalion, and continues operations. He issues FRAGOs as required.

b. The company tactical SOP should cover reestablishment of the chain of command. The allocation of radios and radio nets, and the location at which command is reestablished should be planned for during both static and mobile situations.

2-8. ORDERS GROUP

A standardized orders group assists the rapid planning and dissemination of orders. It also ensures all key personnel attend the OPORD. The orders group normally includes the XO, 1SG, commo chief, NBC NCO, company FSO, platoon leaders, antiarmor section leader, mortar section leader, and leaders of supporting units. The warning order includes when and where the orders group should assemble.

a. Based on guidance from the commander, members of the orders group prepare portions of the OPORD and briefing aids (sand tables, sketches, overlays, matrixes, and so forth). These activities are supervised by the XO or 1SG, freeing the commander to perform other duties (reconnaissance, a detailed estimate, rest, and so forth).

b. The unit tactical SOP should address the composition and duties of the orders group. For example, the 1SG can prepare paragraph 4 and the communications sergeant can prepare paragraph 5b.

2-9. COMPANY COMMAND POST

The company CP does not have a set organization. It consists of the CO and other personnel and equipment required to support the C2 process for a specific mission. It locates where the CO determines it can best support his C2 process. Its purpose is to provide communications with higher, lower, adjacent, and supporting units; to assist the CO in planning, coordinating, and issuing the company OPORDs; and to support continuous operations by the company. Often the CP must also provide its own security.

   a.   Normally, the CP consists of the CO and his RATELOs, the FIST HQs, the communications sergeant, and the NBC NCO. The XO, 1SG, armorer, reserve element leader, and the leaders of attached or supporting units may also locate with the CP.

   b.   When positioning the CP, the CO considers his communication requirements, the security needs for the CP, and above all, the location where he can best fight his company from.

   (1) In static positions (assembly areas, battle positions, and so forth), a stationary CP location may be designated by the CO. This allows wire communications to be established with battalion and the units of the company, field expedient antennas to be set up, and fighting positions to be dug. It also provides a designated spot to which messengers can report. The CP should be off natural lines of drift and key terrain features. It must be well camouflaged from ground and air observation. Local security is provided, either by its relation to the rifle platoons, by collocating with the company reserve element, or by its own personnel. When the CO leaves the CP, the XO or the 1SG normally assume control.

   (2) When moving, the CO designates where the CP will move (Chapter 3). At times, he may locate away from the CP. For example, to control the company's movement better, he may move with the lead platoon; or in the attack, he may locate with the main effort. In these situations, he may designate a part of the CP (his RATELOs or the FSO) to move with him.

   c.   The CP personnel also assist the commander by preparing parts of the company OPORD. They also—

- Provide recommendations or input during the planning.
- Receive and send required reports and SITREPS.
- Lay land lines to subordinate units.

   d.   The CP must be capable of conducting continuous operations. Section IV of this chapter provides additional guidance for conducting sustained and continuous operations. Because of the impact that stress and fatigue will have on the C2 process, commanders should consider the following:

- Organize and man the CP to allow continuous operations.
- Cross train personnel.
- Discuss critical decisions with the XO or 1SG.
- Set up a CP sleep plan and ensure compliance of it.
- Ensure key decision makers get sleep (do not wait until fatigue requires this– do it from the start).

Section II.   COMMAND AND CONTROL PROCESS

The leader uses the command and control process to figure out what is going on, decide what to do about it, tell soldiers what to do, then keep track of how well his soldiers are doing. The troop–leading procedures are the leader's tools to guide the command and control process. These procedures provide a common framework for all echelons of command to apply the C2 process. Two other tools that are part of the C2 process are the estimate of the situation and METT–T analysis. The relationship of these three tools is depicted in Figure 2-1.

2-10.   TROOP-LEADING PROCEDURES

The troop-leading procedures are the dynamic process by which a commander receives a mission, plans it, and executes it. It should be an instinctive and familiar way of thinking for a company commander. The sequence of the individual TLPs is not rigid. It is modified to meet the mission, situation, and available time. Some steps are done concurrently while others may go on continuously throughout the operation. The TLPs are time savers; as such, the leader conducts them in the order that most effectively uses the available time.

   a. **Receive the Mission**. A mission may be received in the form of either a written or oral warning order, operation order, or fragmentary order. At times, a leader may deduce a hange in mission, based on a change in the situation. When the battalion OPORD is issued, the company commander should have his company FSO with him.

   (1) Once an upcoming mission is identified, actions to begin preparing the unit are conducted. The CO conducts an initial METT–T analysis to determine the requirements for his warning order.

   (2) With the information available, the commander sets his time schedule by identifying the actions that must be done (time–critical tasks) to prepare his unit for the operation. These preparatory actions are identified by a preliminary consideration of the information on the mission, enemy, terrain, and own troops. An initial reconnaissance (may be a map reconnaissance) is conducted to allow the leader to more fully understand the time requirements for the mission. He then develops his time schedule by starting at "mission time" and working backward to the time it is now (reverse planning). The mission time is normally the most critical time in the operation.
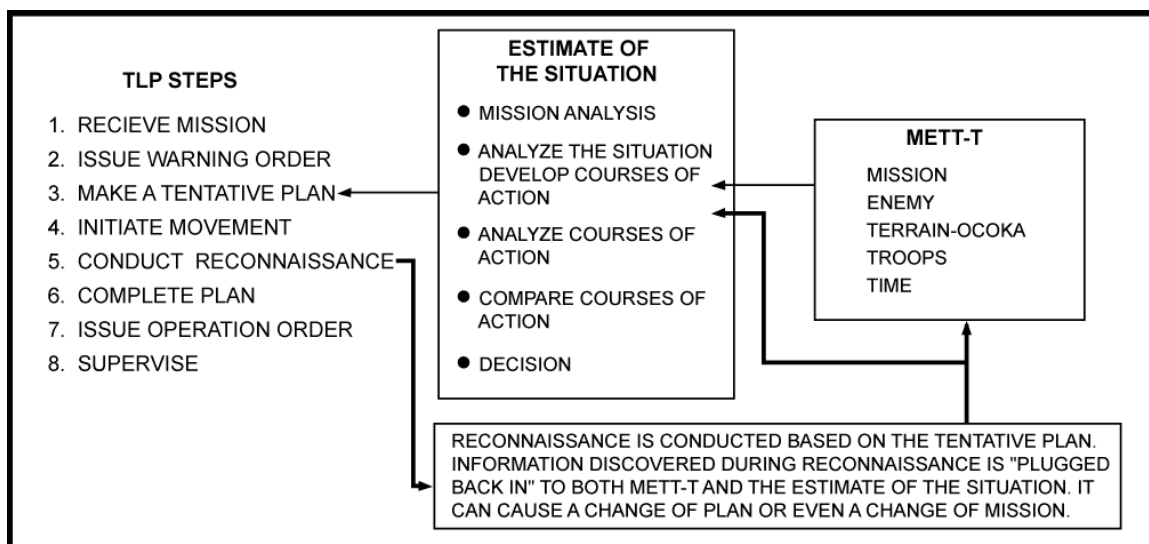
TLP STEPS

1. RECIEVE MISSION
2. ISSUE WARNING ORDER
3. MAKE A TENTATIVE PLAN
4. INITIATE MOVEMENT
5. CONDUCT RECONNAISSANCE
6. COMPLETE PLAN
7. ISSUE OPERATION ORDER
8. SUPERVISE

ESTIMATE OF THE SITUATION

- MISSION ANALYSIS
- ANALYZE THE SITUATION DEVELOP COURSES OF ACTION
- ANALYZE COURSES OF ACTION
- COMPARE COURSES OF ACTION
- DECISION

METT-T

MISSION
ENEMY
TERRAIN-OCOKA
TROOPS
TIME

RECONNAISSANCE IS CONDUCTED BASED ON THE TENTATIVE PLAN. INFORMATION DISCOVERED DURING RECONNAISSANCE IS "PLUGGED BACK IN" TO BOTH METT-T AND THE ESTIMATE OF THE SITUATION. IT CAN CAUSE A CHANGE OF PLAN OR EVEN A CHANGE OF MISSION.

Figure 2-1. Tools of the tactician relationship.

(3) The commander must ensure that all subordinate echelons have sufficient time for their own planning needs. A general rule of thumb for leaders at all levels is to use no more than one-third of the available time for planning and issuance of the OPORD. This will leave the rest of the available time for subordinate leaders to use for their planning and preparation. This is a tentative time schedule, which may require adjustment as the TLP process continues.

- 0600, execute mission.
- 0530, finalize/adjust the plan, based on the leader's reconnaissance.
- 0400, establish ORP; begin leader's reconnaissance.
- 0200, begin movement.
- 2100, conduct platoon inspections.
- 1900, hold rehearsals.
- 1800, eat meals (tray packs).
- 1745, hold briefbacks (SLs to PL).
- 1630, issue platoon OPORD.
- 1500, hold briefbacks (PLs to CO).
- 1330, issue company OPORD.
- 1045, conduct reconnaissance.
- 1030, update company warning order, if required.
- 1000, receive battalion OPORD.
- 0900, receive battalion warning order; issue company warning order.

b. **Issue a Warning Order.** Do not wait for more information. Issue the best warning order possible with the information at hand and update it as needed with additional warning orders. The warning order lets units prepare for combat as soon as possible after being alerted of an upcoming mission. This normally involves a number of standard actions that should be addressed by SOP. The warning order should address those items not covered in the SOP that must be done to prepare for the mission. The specific contents for each warning order will vary, based upon the unique tactical situation. (Appendix G provides an example warning order.)

c. **Make a Tentative Plan**. Tentative plans are the basis for the OPORD. The leader uses the commander's estimate of the situation to analyze METT–T information, develop and analyze a COA, compare courses of action, and make a decision that produces a tentative plan. (See Section III for details on the estimate of the situation.)

d. **Initiate Movement**. This can be done by having a subordinate leader move the unit to an assembly area or attack position. The instructions for this move can be given in the warning order. The CO ensures that security is provided and fires are integrated for all company movements.

e. **Conduct Reconnaissance.** Reconnaissance is a continuous process during the TLP. The tentative plan should include an R&S plan. Plan and conduct reconnaissance to confirm or adjust the tentative plan. A thorough tentative plan helps the reconnaissance because specific R&S guidance can be given to subordinates. In every tactical operation the CO requires additional information, and at the same time, he must deny the enemy information about his company. These requirements provide the focus for the company R&S plan.

(1) *Prepare the plan*. The CO determines—

- What are his information requirements?
- What are his security requirements? (The higher headquarters may also assign R&S responsibilities to the company.)
- What are the priorities for these requirements?
- What assets are available to meet these requirements? (The CO may request support from higher, adjacent, and supporting units.)
- How much time is available to collect the information or establish security?
- What is most critical (and thus the focus) for his personal reconnaissance?
- To whom will he assign tasks to meet the R&S needs?

(2) *Issue the plan*. The CO provides additional instructions to supplement the assigned tasks to his subordinates. The amount of detail depends on the specific situation. A leader's reconnaissance that has several subordinate units involved requires more specific instructions. These may include the following:

- A specific tasking for selected soldiers from subordinate units, such as the lst Platoon's RATELO.
- A specific time schedule for the reconnaissance (report, inspection, departure, and return times).
- Specified routes and formations.
- Special equipment required.
- Likely contingency plans.
- Fire support coordination.
- Withdrawal plan from the reconnaissance site.
- Link up with the company.

(3) *Select the technique*. The leader's reconnaissance is crucial to every operation. An effective leader reconnaissance provides the required information without being detected by the enemy. The risk of detection and the effect that this loss of surprise will have on the mission must be weighed against the benefit of collecting the information. Generally, the closer the reconnaissance element is to the objective, the greater the risk of detection. The two primary techniques for conducting the leader's reconnaissance are:

(a) Long–range observation/surveillance. Reconnaissance personnel generally stay beyond small–arms range from the objective. This will usually be outside the enemy's security positions also. Tentative OP sites are selected from a map reconnaissance and confirmed after the unit has occupied the ORP. This technique is generally more effective during daylight hours. When possible, OPs should provide 360–degree coverage and may require repositioning at night.

(b) Short–range observation/surveillance. This technique generally requires the reconnaissance personnel to move inside the enemy's security positions and small–arms fire range. It depends on stealth and effective use of available cover and concealment. Limited visibility may support this technique. OPs are also designated for short–range observation.

(4) *Conduct the reconnaissance*. The leader's reconnaissance should be conducted as any reconnaissance patrol; only essential personnel should take part. The smaller this element is, the less likely the enemy will detect them. This should include a leader from each of the key elements. Additional tasks during the reconnaissance may include:

- Testing communications if authorized.
- Making final coordination on precise timings, signals, weapons/personnel locations, and sub-unit responsibilities.
- Establishing security/surveillance on the objective area.

f. **Complete the Plan**. The CO must be prepared to adjust his tentative plan based on the results of the reconnaissance. He may have to change COAs if the situation is not what he expected. In this case, one of the previously analyzed and discarded COAs may be adjusted to quickly finalize his new plan. Coordination continues with all supporting agencies, higher headquarters, and adjacent units. This, along with his recon, gives the leader the information he needs to expand the tentative plan into a five-paragraph OPORD. (See OPORD format, Appendix G.)

g. **Issue the Order**. Preferably issue the order while viewing the avenues of approach/objective area. Make maximum use of visual aids (sketches and terrain models) to enhance the presentation of the order. When the CO issues the tentative plan before the leader's reconnaissance, he issues a FRAGO to finalize the plan prior to execution (see Appendix G).

h. **Supervise.** The best plan may fail if it is not managed right. Briefbacks, rehearsals, inspections, and continuous coordination of plans must be used to supervise and refine troop–leading procedures. Briefbacks and rehearsals are not the same; briefbacks focus on the planning process, and rehearsals focus on execution.

(1) *Inspect*. During pre–combat inspections, check—

- Weapons and ammunition.
- Uniforms and equipment.
- Mission–essential equipment.
- Soldiers' knowledge and understanding of the mission and their specific responsibilities.
- Communications.
- Rations and water.
- Camouflage.

(2) *Rehearse*. Rehearsals are always conducted. They are essential to ensure complete coordination and subordinate understanding. The warning order should provide

subordinate leaders sufficient detail for them to schedule and conduct rehearsals of drills/SOPs before receiving the company OPORD. Rehearsals conducted after the OPORD can then focus on mission specific tasks. Rehearsals are conducted as any other training exercise except the training area should be as much like the objective area as possible, including the same light and weather conditions. Mock–ups of the objective should be used for these practices. Rehearsals include holding soldier and leader briefbacks of individual tasks and using sand tables or sketches to talk through the execution of the plan. These are followed by walk-through exercises and then full-speed, blank-fire or live–fire rehearsals. The CO should establish the priority for rehearsals based on the available time. The priority of rehearsals, as COA development, flows from the decisive point of the operation. For example, actions on the objective, battle drills for maneuver, actions on enemy contact, special teams, movement techniques, and others as required. Security must be maintained during the rehearsal.

(3) *Briefback*. Subordinates should briefback the commander right after the OPORD to ensure they understand their instructions. Briefbacks of the subordinates' plans should also be conducted. These briefbacks may be given collectively at a meeting of the orders group. Such a technique allows exchange of information, coordination among units, and rapid distribution of changes to the initial plan.

(4) *Coordinate*. The commander visits his subordinates and adjacent units to discuss their plans. The CO ensures that all necessary preparations are being made. These may include coordination of fire support and engineer activities, maintenance, resupply, movement, and other required actions.

(a) Any departures from the plan, both before and during the operation, are coordinated with the battalion commander and staff.

(b) During execution, the CO issues FRAGOs to modify or refine the operation as the situation develops. He personally supervises and or leads the critical actions.

2-11. COMMUNICATIONS

The CO communicates to control his platoons and weapons, to gather and pass information, and to call for fires. He ensures required communications are available and functioning.

a. The CO analyzes each situation to determine the effect that the terrain, weather, and enemy may have on his ability to communicate. He reduces these effects by proper positioning of units, establishing visual signals for critical events, requesting a relay site be established by the battalion, and other similar measures. The best way to limit these effects is to reduce the need for communication throughout the operation by developing a simple plan, which requires the least amount of command intervention during the execution.

b. Several means of communications should be planned so the company does not depend on only one. Considerations in selecting means of communications are:

- How long does it take to install?
- How long does it take to send a message?
- How vulnerable is it to enemy action?
- How critical is it to communicate? On which net? At what time?
- How reliable is it?
- What does it cost in resources?

c. There are several means available to the CO. He should use each of them, as appropriate, to complement each other. They are radio, wire, visual signals, sound, and messenger.

(1) *Radio*. This is probably the most common means of communications. Radios are well suited for use when the company is on the move or in an attack. Different units often have different types of radios, but the basic company command net remains about the same (Figure 2-2). The CO normally has two radios–one for the battalion command net and the other for the company command net. He may operate from his vehicle (if assigned), which is equipped with two vehicular–mounted radios. He normally has a speech security device for secure communications on the battalion command net. The XO and platoon leaders have a radio for communications with the CO. Although most infantry companies have a radio available for the XO (three in the company headquarters), the lack of a RATELO and the limitations of the radio often limit the ability of the XO to maintain communications with higher and adjacent units. When planning radio communication, the CO considers several factors.

(a) Constant radio contact is not essential for all operations. Often, due to the terrain, radio limitations, and type of operation, radio contact will be lost. At other times, signal security will require radio listening silence be imposed. The CO must determine when and where communication will be critical during the operation and then ensure the required units can communicate.

(b) He must think through the movement of the company to ensure that he knows when the terrain may disrupt radio communications. The key lies in maintaining line–of–sight within the planning ranges of his radios. These ranges can be extended two to three times through the use of field expedient antennas (FM 24-18). When required, the CO may establish or request battalion to set up a relay site.

(c) He must ensure that all leaders know what to do in the event radio communications are lost. Redundant communications are provided through the company fire support net, if it is needed. This should be done only as a last resort.

(d) Many infantry companies have the capability to operate a secure company net. This decision should be based on the enemy threat and balanced against the soldier's load and the possible loss or capture of this equipment.
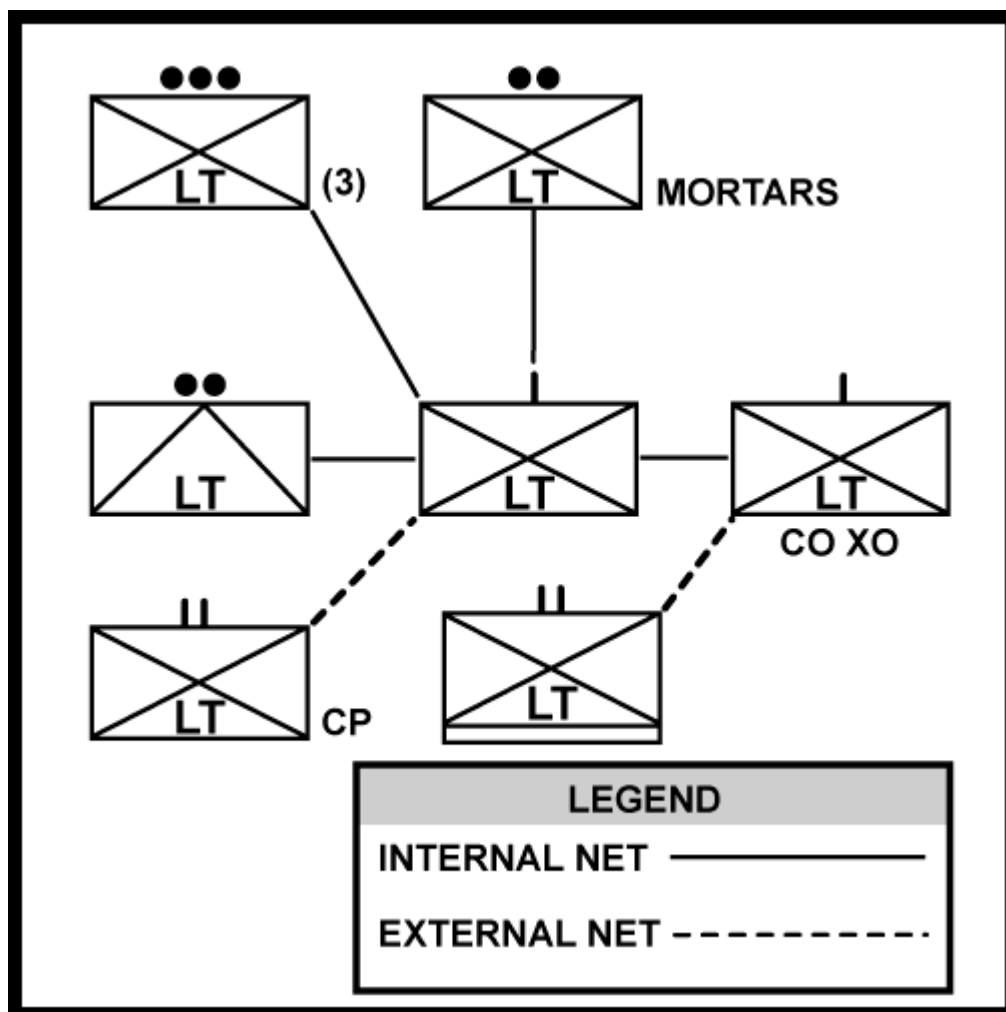
Figure 2-2. Company command net.

(2) *Wire.* Wire is more secure than radio. Wire usually provides better communications because it is less subject to interference from weather, terrain, and man–made obstacles. It is not subject to enemy electronic warfare actions, such as jamming and direction finding. It is, however, subject to breakage by direct and indirect fire and ground traffic.

(a) Although wire is more secure, it can be tapped, so transmissions must be kept secure. The time needed to install it depends on the terrain, the weather, the length of the lines, and the way they are laid. As wire can be easily broken by weapons fire, it should be buried when possible. In areas heavily traveled by vehicles, wire that cannot be buried should be put overhead. Wire lines must be checked frequently and repaired as required.

(b) The decision to use wire depends on the company's mission, amount of wire and time available, and the company's capability to install and maintain it. Most infantry companies have limited amounts of wire. Only the H-series infantry has adequate wire, equipment, and personnel to routinely use wire as the primary means of communication. The CO must prioritize the communication needs and use the available wire where required.

(c) As with the company's radio net, different types of rifle companies have different types of wire equipment. However, the company wire net normally includes the same leaders as does the company command radio net (Figure 2-3).
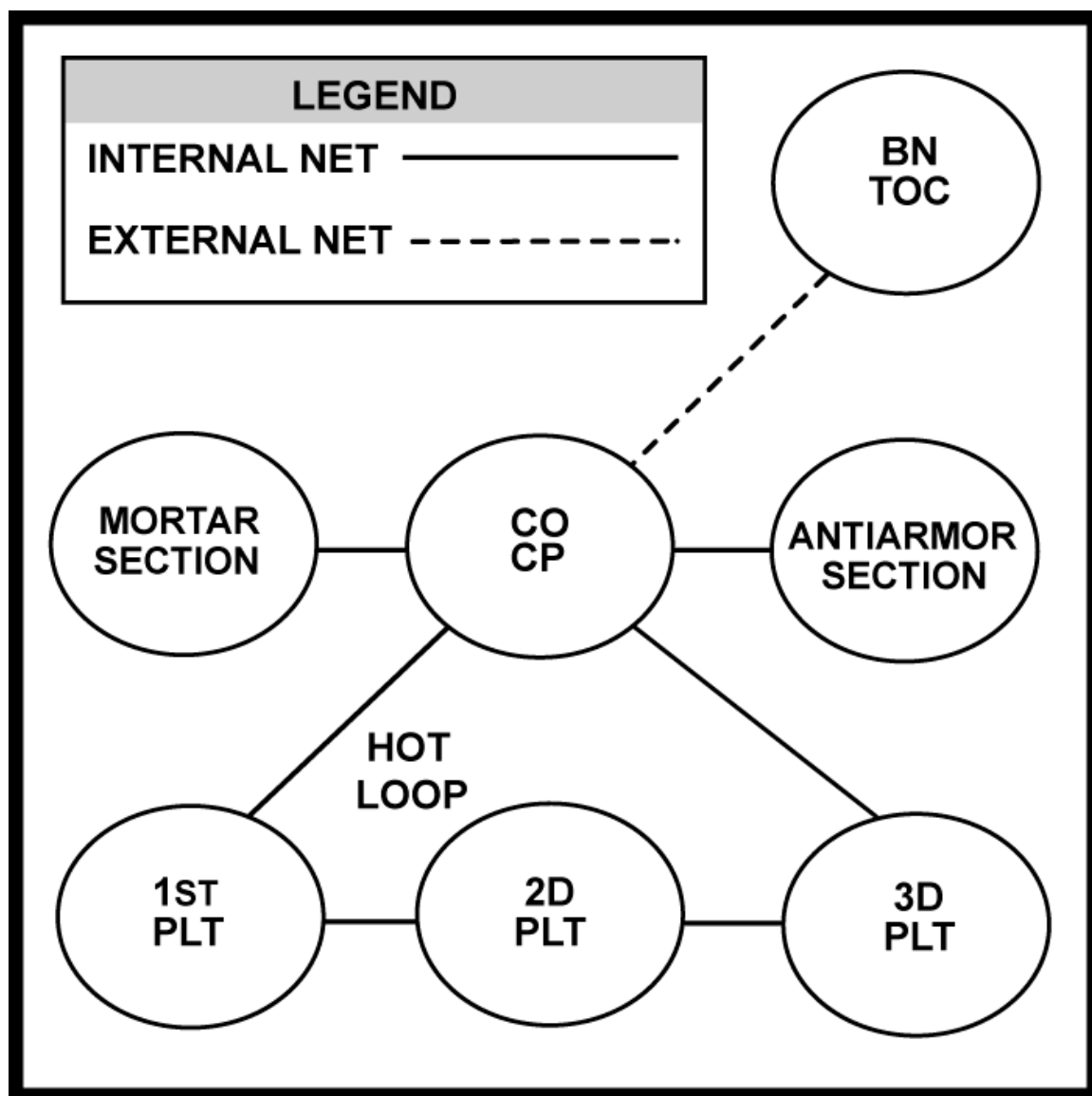

Figure 2-3. Company wire system.

(3) *Visual signals.* The company commander may use visual signals to send prearranged messages quickly and to identify friendly units. They include arm–and–hand signals, flags, panels, lights, weapon fires (both direct and indirect) and pyrotechnics. He may use visual signals to identify friendly positions for aircraft. Visual signals, however, may be seen by the enemy or be misunderstood by friendly units.

(a) Pyrotechnics are available in several types and colors. They include smoke grenades, smoke streamers, star clusters, star parachutes, and a variety of artillery and mortar rounds. The commander uses pyrotechnics for signals, friendly unit identification, fire control, target marking, and ground–to–air communications. Pyrotechnic signals may

be prescribed by the SOI, SOP, or the OPORD. Their advantage is the speed with which information can be transmitted.

(b) Combinations of colors fired at the same time or in a series increase the chance of error, as it is easy to miss part of a series.

(c) Visual signals may be seen by the enemy as well as by friendly units. The enemy may even imitate friendly signals. Therefore, visual signals should not be trusted fully unless the signaler can be identified.

(4) *Sound.* The company commander may use whistles, sirens, gongs, shots, and explosive devices for sound communications. These can attract attention, transmit prearranged messages, and spread alarms. Sound signals are usually good for short distances only. Their range and reliability may be further reduced by battle noise. Sound signals must be simple to avoid misunderstandings. Meanings for sound signals should be stated in the unit SOP and SOI.

(5) *Messenger.* Aside from personal contact, messengers are the most secure and reliable communications means. Messengers should always be available at the company CP. They are ideal for transmitting lengthy written messages. Their speed depends on their mode of travel, the tactical situation, and terrain. They are vulnerable, however, to enemy action in forward areas, and they lack sender–to–receiver contact. Hard copy messages are preferred over oral messages. If oral messages are sent, have the messenger repeat the message to ensure he understood. At times, the platoons may be tasked to provide a messenger to the company CP.

2-12. ELECTRONIC COUNTER–COUNTERMEASURES

The ECCM are those things the company does to defeat enemy electronic warfare efforts. Although the company is not usually the focus of intercept, jamming, or direction finding systems, proper COMSEC procedures are required by all radio operators. At company level, ECCM consists mainly of proper communications security and antijamming techniques. Although the SINCGARS radios have built–in ECCM features, units still use proper COMSEC procedures.

a. **Communications Security**. The use of COMSEC delays or stops the enemy from gaining information from radio transmissions. It includes the following:

- Authenticating.
- Using only approved codes.
- Changing frequencies and call signs, when specified.
- Designating periods for radio listening silence.
- Restricting the use of radios.
- Using the lowest transmitting power possible.
- Enforcing net discipline and proper radiotelephone procedure.
- Using only authorized call signs and prowords.
- Limiting transmissions to official traffic.
- Keeping transmissions short.
- Selecting radio sites with hills or other obstructions between them and the enemy.
- Using directional antennas when possible.

b. **Antijamming Procedure**. Radio operators should use the following antijamming procedures to defeat enemy jamming efforts.

(1) *Recognition*. The first thing an operator must do when his radio receives interference is to find the cause. He should not immediately assume jamming. Some jamming is similar to other types of radio interference. To help identify the problem, the operator should remove the antenna. If the interference decreases with the antenna removed, then its cause is external and may be jamming. If the interference does not decrease, the problem is in the radio.

(2) *Continued Operation*. An operator must continue normal radio operation once jamming has been identified so that the enemy will not know that his jamming is working. The rule is: During jamming, continue operating unless ordered by the net control station to shut down or to change frequencies. An operator being jammed should never mention over unsecured radio that he is being jammed. If the company cannot continue to operate on the jammed net and also continue the mission, they should switch to the antijamming frequency and continue the mission.

c. **Reporting**. Report all jamming using the meaconing, intrusion, jamming, and interference report. The MIJI report should be sent by another secure means of communications; for example, wire or messenger. A MIJI report format is usually found in the SOI or unit TACSOP and contains the following:

- Date and time of jamming.
- Frequencies jammed.
- Type and strength of jamming signal.
- Designation of the unit making the report.

Section III.   THE ESTIMATE OF THE SITUATION

The estimate of the situation is the Army's decision–making process. It helps the leader determine his mission, understand his situation, and select the best course of action to accomplish his assigned responsibilities. Leaders use the estimate for EVERY tactical decision. Their experience, ability, and the time available will determine the amount of detailed analysis in each estimate. The estimate is a continuous process; the CO constantly receives information about the situation. Whenever he receives the information (during planning, en route to the objective, or just before the assault begins), he must decide if this information affects his mission. If it does, then he decides how to adjust his plan to meet this new situation. It is only through the estimate process, however hasty, that the leader can make the proper decision. The estimate has five steps.

Step 1: Conduct a detailed mission analysis.
Step 2: Analyze the situation and develop courses of action.
Step 3: Analyze courses of action (wargame).
Step 4: Compare courses of action.
Step 5: Make a decision.

2-13. CONDUCT A DETAILED MISSION ANALYSIS

Leaders conduct a detailed mission analysis whenever they receive instructions to begin a new operation. These instructions may be received as warning orders, OPORDs, or FRAGOs. The leader may also deduce a change to his mission based on a change in the situation. In any case, the CO conducts the mission analysis to determine the following:

- Commander's concept and intent (battalion and brigade).
- All tasks his unit must accomplish.

- All limitations on his unit's freedom of action.
- His unit's restated mission statement.

a. **The Higher Commanders' Concept and Intent**. The company commander must know what both his battalion and brigade commanders want accomplished as the result of the operation. He must also understand his role and responsibilities within their concepts. This information is found in the battalion OPORD in paragraph 1b for the brigade and in paragraph 2 and 3 for the battalion.

b. **The Unit's Tasks**. The CO determines all the tasks that his unit must accomplish; they may be found throughout the order. Tasks that are clearly stated in the order, during the oral OPORD, or on the operation overlay are called specified tasks. Examples of specified tasks are:

- Retain hill 545 to prevent envelopment of B Co.
- Provide one squad to the 81-mm platoon to carry ammo.
- Establish an OP vic GL124325 NLT 301500 NOV 89.

(1) In addition to these specified tasks, other requirements may become apparent as the OPORD is analyzed. These are called implied tasks; they are not routine or SOP–type requirements. Nor are they requirements inherent to other assigned tasks or to military operations. Routine or SOP tasks depend on the specific unit, but generally the following type tasks would be considered routine:

- Provide security during movement.
- Conduct resupply operations.
- Coordinate with adjacent units.

(2) If the company was assigned a mission to seize an enemy position for some purpose, some examples of inherent tasks might be as follows:

- Task-organize the unit to accomplish the mission.
- Conduct reconnaissance to locate enemy weak points.
- Isolate the area at the point of attack.

(3) In some cases or for some units, tasks that should be routine, inherent, or SOP may not be. In this case, the CO (understanding the training and limitations of his unit) would identify that task as an implied task. It is not important to classify the tasks. What is important is to identify all the requirements (tasks) that the unit must complete to accomplish its mission. Once the CO identifies these tasks, he then ensures that his plan includes all of them.

c. **The Unit's Limitations**. The CO next determines all control measures or instructions in the OPORD that restrict his freedom of action; these are called limitations. In every operation, there are some limitations on the company. The operations overlay has graphic control measures that restrict the unit's freedom to maneuver. The coordinating instructions often include limitations. Throughout the order, there may be specific times that the unit must meet. The following are some examples of common limitations:

- Cross the LD at 100030 OCT 94.
- MOPP4 in effect.
- ADA weapon status, tight; warning status, yellow .

At times, it may be confusing whether something is a task or a limitation. The first example given above is both a specified task (cross the LD) and a limitation (at exactly

0030 hours on 10 OCT). What is important is that the information is included in the CO's concept, and that all subordinates understand and comply with it.

d. **Mission-Essential Task(s).** After reviewing all the above factors, the CO identifies his mission–essential task(s). Failure to accomplish a mission-essential task results in the company's failure to accomplish its primary purpose for that operation. In a well-written OPORD, the CO will find his mission-essential task in the maneuver paragraph.

e. **The Restated Mission Statement**. If the mission analysis began as the result of receiving a battalion OPORD, the mission statement should have been clearly stated in the battalion concept of the operation, (paragraph 3a). The mission essential tasks and purposes for each of the companies should be stated in the battalion scheme of maneuver.

(1) If the mission analysis began as the result of a short FRAGO or a significant change to the situation, the company's mission may not be clearly stated. In this case, the commander must determine his mission essential task. He does this by reviewing the battalion commander's concept and determining what his companies role is for the decisive action. What must his unit achieve to support the battalion's mission accomplishment? The relationship of his unit to the battalion's main effort may also clarify his mission essential task. If his company is the main effort, there should be a direct relationship between his purpose and the battalion's purpose. If the CO reviews each of his assigned tasks by this process, it should be clear which task is essential to the success of the battalion commander's concept.

(2) Time is continuously analyzed during the operation. Once the CO has conducted his mission analysis, he has a better understanding of the time requirements for his unit. If a time schedule was issued prior to conducting the detailed mission analysis, it may need to be updated now.

(3) The restated mission statement becomes the focus for the remainder of the estimate process. This is a clear, concise statement of the essential task(s) to be accomplished by the company and the purpose to be achieved. The mission statement will normally state WHO (the company), WHAT (the task), WHEN (the critical time), WHERE (usually a grid coordinate), and WHY (the purpose the company must achieve). It also becomes paragraph 2 of the company OPORD. The other specified and implied tasks and limitations are included in the plan where required. Some examples of restated missions follow:

- (WHO)"A Company attacks (WHEN) 090500Z Dec 92 (WHAT) to seize HILL 482 (WHERE) vicinity NB 457271 (OBJ BLUE) (WHY) to enable the battalion's main effort to destroy enemy command bunker and reserve platoon."
- (WHO)"C Company defends (WHEN) NLT 281530Z Oct 97 (WHAT) to destroy enemy forces (WHERE) from AB163456 to AB163486 to AB123456 to AB123486 to (WHY) prevent enemy forces from enveloping 1-66 Infantry (L) from the south."

2-14. ANALYZE THE SITUATION

With the restated mission statement from Step 1 to provide focus, the CO continues the estimate process. Step 2 involves analyzing the situation, using the remaining factors of METT–T (enemy, terrain, troops and time). The IPB integrates the enemy doctrine with the terrain and weather to evaluate enemy capabilities, vulnerabilities, and possible COAs. FM 7-20 discusses the IPB process in detail.

a. Once the CO has a full appreciation for the situation, he then develops several COAs that will accomplish his mission. Throughout this section, the analysis process is presented in a very deliberate, step–by–step manner. In reality, it is a very dynamic process. For example, this section describes the terrain analysis coming before the enemy analysis. In a tactical situation, the commander will normally have a great deal of knowledge about the enemy. In effect, this allows a more rapid estimate and decision. What must be avoided is jumping to a hasty conclusion/decision without first doing an honest analysis of the situation. Step 2 is normally the most time consuming step of the estimate.

b. During the analysis, the CO determines facts about the situation. He also determines questions for which he has no facts. He then tries to answer these questions through additional analysis or reconnaissance. When these questions impact on his ability to develop valid courses of action, he must plan from assumptions.

(1) Assumptions are used in the absence of facts. They are based on the facts that he has developed, his knowledge of the enemy's doctrine, and also his experience from fighting this enemy. An example of a valid assumption might be: The enemy has prepared antipersonnel minefields on the dismounted avenues of approach into his position. Possible minefield locations can then be deduced based on the enemy's doctrine and the CO's knowledge of his tactics. During this analysis, assumptions are treated as facts to allow the CO to deduce the impact they may have on his unit. The CO reduces the number of assumptions by conducting reconnaissance to gather the required facts.

(2) The CO also analyzes the facts to determine how they impact on his mission, on his unit, and on the enemy. For example: The CO's terrain analysis identifies a creek that is an obstacle to mounted movement. The CO analyzes this fact to deduce the impact it may have on the operation. If he is defending, he must determine how the creek will affect the enemy's movement. It may only be an obstacle to wheeled vehicles and not to tracked ones. Are there choke points along the obstacle which would allow him to concentrate combat power against the enemy? How will the obstacle affect friendly units? Is vehicle resupply and casualty evacuation possible forward of the creek or will he have to use soldiers to move supplies and casualties? How can this obstacle assist in the accomplishment of his mission? The quality of these deductions will determine the effectiveness of the courses of action developed later in Step 2. Figure 2-4 shows this analysis process for Step 2.
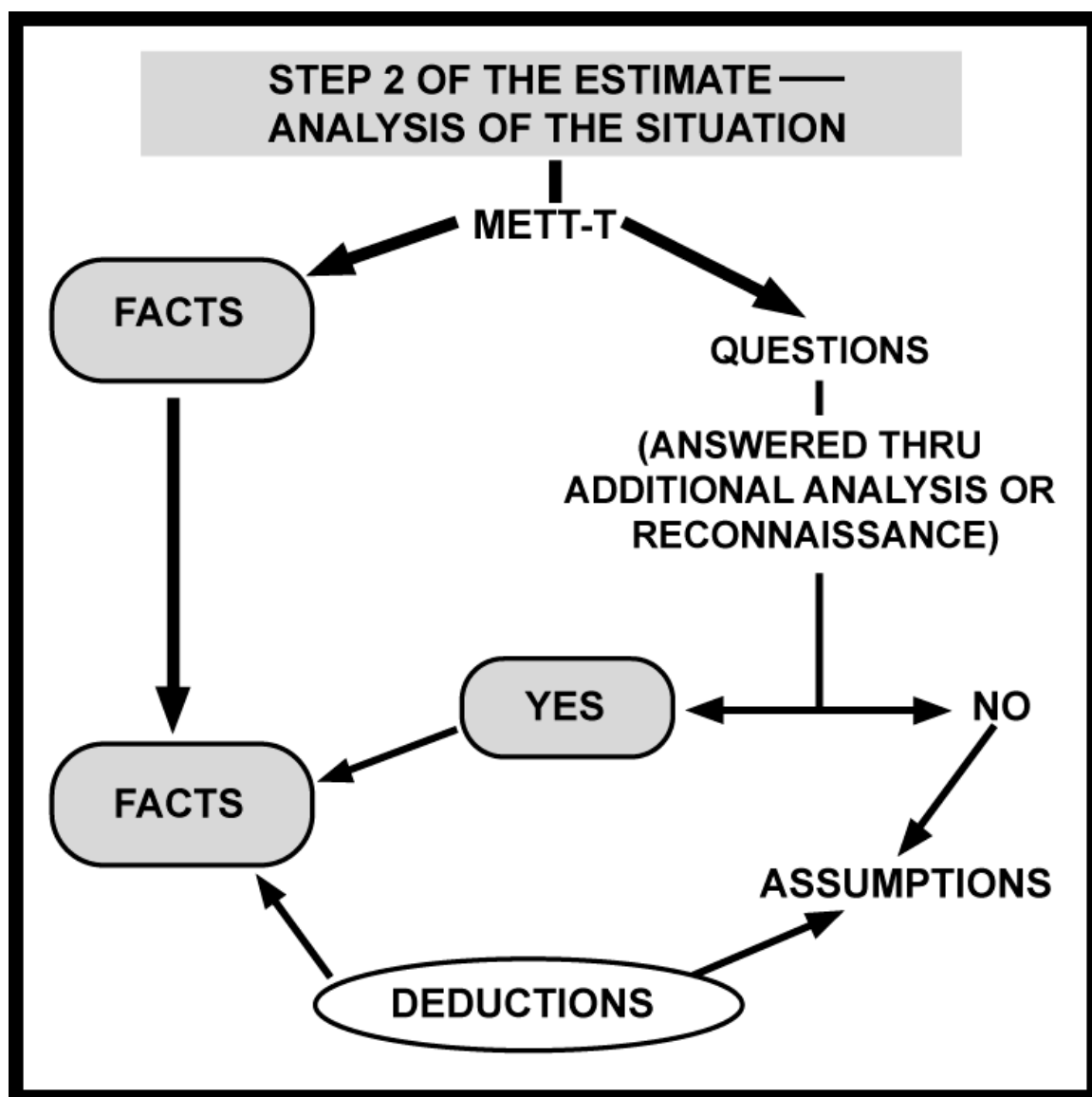
Figure 2-4. Analysis process.

(3) Throughout Step 2, the CO identifies potentially decisive points where he can generate superior combat power in relation to the enemy. These points may result from his terrain analysis (locations on the ground which provide an advantage or put the enemy at a disadvantage), from the enemy analysis (an identified enemy weakness that can be exploited), or possibly from the time analysis (a time when the combat potential of the enemy force is degraded). Ideally, a decisive point will be identified where an enemy weakness is positioned at a time and a location that allows the company to generate overwhelming combat power. These points are potentially decisive because the effects of the company's combat potential, when applied there, should lead to accomplishing the mission.

2-15. ANALYZE THE TERRAIN

The factors of METT–T guide the leader through the estimate process. Although the first factor is mission analysis, the next factor analyzed should be the terrain, not the enemy. By understanding the terrain prior to the enemy analysis, the leader will have a better appreciation for the enemy's capabilities and limitations.

a. The leader considers the terrain from both his view–point and from the enemy's. The battalion assigns the company its area of operations. If there is terrain or enemy units outside the assigned AO that could impact on the mission, the leader must be concerned with them. This terrain, including the area of operations, is called the area of interest. The leader conducts a detailed terrain analysis of this area.

b. The mnemonic OCOKA provides the significant military aspects of the terrain. These will assist the leader with his terrain analysis. In order, analyze obstacles, avenues of approach, key terrain, observation and fields of fires, and cover and concealment. Because of the effect that the weather has on the terrain, it is analyzed at the same time.

(1) *Obstacles.* Identify the existing and reinforcing obstacles and hindering terrain that will affect mobility. All terrain is evaluated and coded as either NO–GO, SLOW–GO, or GO. When time permits, a combined obstacle overlay is developed to graphically depict the mobility capability of the terrain. Figure 2-5 shows an example of a combined obstacle overlay.

- NO–GO terrain is impractical for the type of force being considered to move through it. NO–GO terrain does not always mean that units cannot pass through that terrain, but only that the speed of movement will be substantially reduced unless considerable effort is expended to enhance mobility. (Example: nonfordable stream and slopes of greater than 45 degrees for mounted movement.) With mounted forces, this would mean substantial engineer support.
- SLOW–GO terrain hinders ground movement to a lesser degree than NO–GO terrain. Little effort is needed to enhance mobility. (Example: sparsely vegetated forests and fordable streams.)
- GO terrain is fairly open terrain that presents no problem to ground movement.

(a) Offensive considerations:

- How is the enemy using these obstacles?
- How will these obstacles affect my movement?
- Where are the weapons/units that are covering these obstacles?
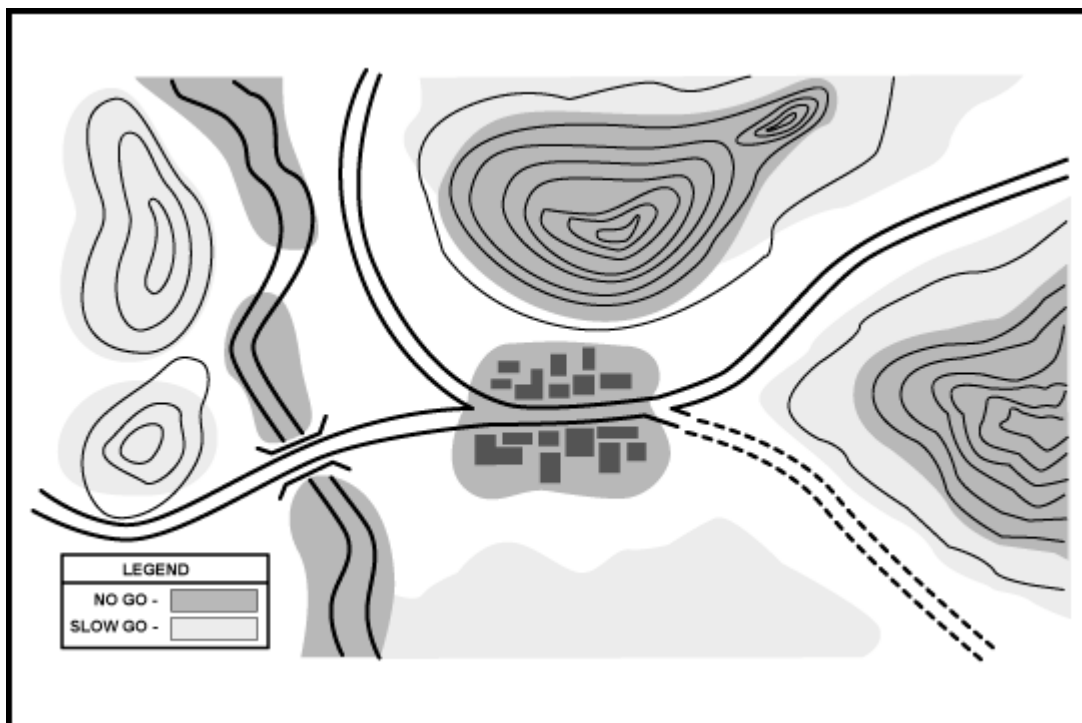- How can the company avoid these obstacles?

Figure 2-5. Combined obstacle overlay.

(b) Defensive considerations:

- How will the existing obstacles affect the enemy?
- How do the existing obstacles support my mission?

(2) *Avenues of approach*. Avenues of approach are developed next and identified one level down. These are areas through which a unit can maneuver. Normally, they are thought of in terms of mounted movement, but they can be applied to dismounted movement as well. Both mounted and dismounted avenues of approach must be identified. When selecting them, the commander uses tactical judgment with respect to the type unit to be used. They traverse GO terrain, bypass NO–GO terrain, and occasionally pass through or over SLOW–GO terrain. They are considered for both the enemy and friendly units. As such, a doctrinal width guideline for a platoon is 250 meters, a company is 500 meters, and a battalion is 1,500 meters. Aerial and subterranean avenues must also be considered.

(a) Offensive considerations:

- How can these avenues support my movement?
- What are the advantages/disadvantages of each? (Consider enemy, speed, cover, and concealment.)
- What are the likely enemy counterattack routes?

(b) Defensive considerations:

- How can the enemy use these approaches?
- Which avenue is most dangerous? Least? (Prioritize each approach.)
- Which avenues would support a counterattack?

(3) *Key terrain*. Key terrain is any location or area that the seizure, retention, or control of affords a marked advantage to either combatant. Using the map and

information already gathered, look for key terrain that dominates avenues of approach or the objective area. Next, look for decisive terrain that if held or controlled will have an extraordinary impact on the mission. The retention or seizure of decisive terrain is necessary for accomplishment of the mission. During the war–game process, other terrain may be identified as potentially key or decisive, based on likely changes in the situation. By this analysis, the commander should get a good feel for potential positions for friendly and enemy units and weapon systems. These locations are important during the development of COAs.

(a) Offensive considerations:
  • Is the enemy controlling the key terrain? How?
  • How does this terrain affect my mission?
  • How can I gain control of this terrain?

(b) Defensive considerations:
  • What advantage do I gain by controlling the key terrain?
  • How can the enemy gain control of this terrain?

(4) *Observation and fields of fire.* Determine locations that provide the best observation and fields of fire along the approaches, near the objective, or on key terrain. Determine the potential of friendly or enemy forces to overwatch or support (with direct fire) the movement of their forces, and to observe movement along the avenue of approach and place fire on it from various positions on the terrain. The analysis of fields of fire is mainly concerned with the ability to cover the terrain with direct fire. Positions with good observation for the FIST personnel are also identified. Look at the capability of direct fire weapons from likely or known positions. Reconnaissance from the enemy's viewpoint is most effective when conducting a defensive analysis. Determine where fires may be concentrated.

(a) Offensive considerations:
  • What are the fields of fires and observation for enemy weapons on or near the objective? En route?
  • Is there any dead space around the objective? On the approaches into it?
  • What are the fields of fires and observation from likely support positions?
  • Where can the enemy concentrate fires? Where is he less able to concentrate his fires?

(b) Defensive considerations:
  • What locations provide good fires and observation on the enemy approaches?
  • How obvious are these positions to the enemy?
  • Determine possible locations for the key weapons (M60 MGs, Dragons, mortars).

(5) *Cover and concealment.* The analysis of cover and concealment is often inseparable from the fields of fires and observation. Weapon positions must have both to be effective and to be survivable. Infantry units are capable of improving poor cover and concealment by digging in and camouflaging their positions. When moving, the terrain is used to provide cover and concealment.

(a) Offensive considerations:
  • Determine the routes with good cover and concealment.
  • Identify areas along the approaches to the objective with poor cover and concealment.

- Consider the use of smoke missions/limited visibility to provide concealment.

(b) Defensive considerations:

- Focus on the locations with good fields of fires.
- Think about how the enemy can use the available cover and concealment.

c. Weather factors are considered at the same time as terrain. Primary emphasis is on temperature/humidity, precipitation, wind, cloud cover and visibility. Light data is considered as part of cloud cover and visibility. The commander focuses on how the weather affects the terrain, equipment, and soldiers of both forces.

(1) *Terrain*. The terrain is most affected by rain, snow, or freezing temperatures. GO terrain may become NO–GO terrain after a heavy rain because it will no longer support vehicle movement. Freezing this same terrain may revert it to GO terrain if it will now support vehicles. The frozen ground may prevent digging fighting positions.

(2) *Equipment*. The temperature and humidity can change the amount of maintenance required to keep equipment operating. Batteries may not last as long. The soldiers' clothing and boots wear out faster under some conditions.

(a) Vehicles. Aviation assets are grounded by a number of weather conditions. Vehicles freeze to the ground or fail to start in extreme cold. Hot and dusty conditions increase the maintenance needs.

(b) Weapons. The operation and maintenance of weapons are affected by extreme temperatures. Even if the weapon is not affected, the capability to acquire targets may be severely degraded. High winds affect the accuracy of all projectiles particularly indirect fires.

(3) *Soldiers*. The spirit and morale of the soldiers are affected by the conditions they fight in. In winter zones, more energy and resources may be spent on just surviving the elements than fighting the enemy. Nonbattle casualties may outnumber the battle casualties.

2-16. ANALYZE THE ENEMY

Often, a major portion of the enemy analysis has already been completed for the company commander by the brigade and battalion S2s, who had access to much more information. The important enemy information is provided to the company commander in paragraph 1a of the OPORD. The CO must accept this information as accurate because it is what the battalion commander based his concept on. If a company commander developed his concept based on a different enemy COA, he could disrupt the entire battalion plan. Therefore the company commander begins his enemy analysis from the information provided by battalion. However, it is important to realize that the battalion S2's analysis did not focus on the enemy expected in the company's sector or the company's portion of the objective. He was looking at the situation from a broader perspective and with different concerns. It is the company commander's responsibility to refine this information to develop the detailed understanding required to complete his concept. The focus of this analysis is to locate the enemy's strengths (to avoid them) and his weaknesses (to exploit them). The end result of the enemy analysis should be a detailed statement of the enemy's most probable COA. At this point, the commander analyzes the enemy's composition, disposition, recent activities, reinforcement capabilities, possible courses of action, and weaknesses.

a. **Composition**. This is an analysis of the forces and weapons that the enemy can bring to bear. Determine their strength, what weapons systems they have available, and what additional weapons and units are supporting him. The CO must know the enemy's weapons as well as his own. It is this detailed knowledge of the specific characteristics for each weapon that allows the leader to pinpoint the enemy's weaknesses.

b. **Disposition**. The enemy's disposition is how he is arrayed on the terrain, such as in defensive positions, in an assembly area, or moving in march formation. Use enemy doctrinal templates to develop situational templates. Consider how long the enemy has to prepare his defense or attack. When analyzing the situational templates, search for his weak points, which may be exploited to destroy him or to control the decisive ground. Consider where he is accepting risk and where the terrain limits his ability to defend, attack, or gain mutual support. Finally, determine what his intentions are.

c. **Recent Activities**. Identify recent and significant enemy activities that may indicate future intentions. These activities may point out a weakness that the company can exploit. They may also provide a better understanding of what the enemy is likely to do in reaction to the company. This will result in a more effective war–game process.

d. **Reinforcement Capabilities**. Determine positions for reserves and estimated time to counterattack or reinforce. Although the enemy analysis must focus on the enemy force on the company's objective or expected in the company's sector, the CO should consider all enemy forces in his area of interest. To fully understand his enemy force, the CO must understand how the enemy he is fighting fits into the larger enemy force.

e. **Possible Courses of Actions**. Determine the enemy's possible COAs. Analyzing these COAs may ensure that the friendly unit is not surprised during execution. Determine the enemy's most likely COA; use the other possible COAs to develop contingency plans or security taskings. Develop a narrative description and sketch of the enemy COA from start to finish. Examples of enemy COAs follow.

(1) "The enemy will continue to defend with one platoon in a deliberate defense vicinity of HILL 482 oriented to the north and west. Two squads and two MGs are oriented north overlooking a mounted avenue of approach. One squad and one MG is oriented west against a dismounted approach. The platoon CP is on the topographical crest of Hill 482. There are between 20 and 30 personnel in this position. A minefield is located NW of the position at the bottom of the hill. A suspected minefield is west of the position. The confirmed OP is rotated every 8 hours. Security patrols (5 to 7 men) operate north and west of the position at random intervals. An OP is positioned vicinity of HILL 524. Suspected OP locations are at the trail intersection NW of the platoon and on the trail SW of the platoon. We can expect the enemy platoon to retain its position to prevent its parent company from being enveloped from the NW. If forced to withdraw, he will most likely move to the SE where there are supporting fires from the parent company. This company could reinforce the platoon position with up to 20 men in 20 minutes. Figure 2-6 is a situational template of this enemy position.

(2) "The enemy will attack NLT 120800 Dec 87 to seize the high ground vicinity HILL 464 with two MRC (+) conducting the main attack in prebattle formation along avenue of approach C, and one MRC (+) in the second echelon. The CRP and FSE will arrive first and attempt to locate gaps in our defenses. At PL YANKEE, the MRB main body will assume attack formation with tanks leading and will attempt to seize their objective mounted. Specific objectives for the lead MRCs will most likely be the

intersection at GL123456 and HILL 464. Artillery concentrations will be fired on Hill 464 as he crosses PL YANKEE. Smoke will be used to screen his left flank. Although he has the capability to employ chemical weapons, this is not likely. After seizing these objectives, the enemy will continue the attack to seize objectives along the battalion rear boundary. I expect BTR and BMP recon vehicles in our sector within the next 24 hours."
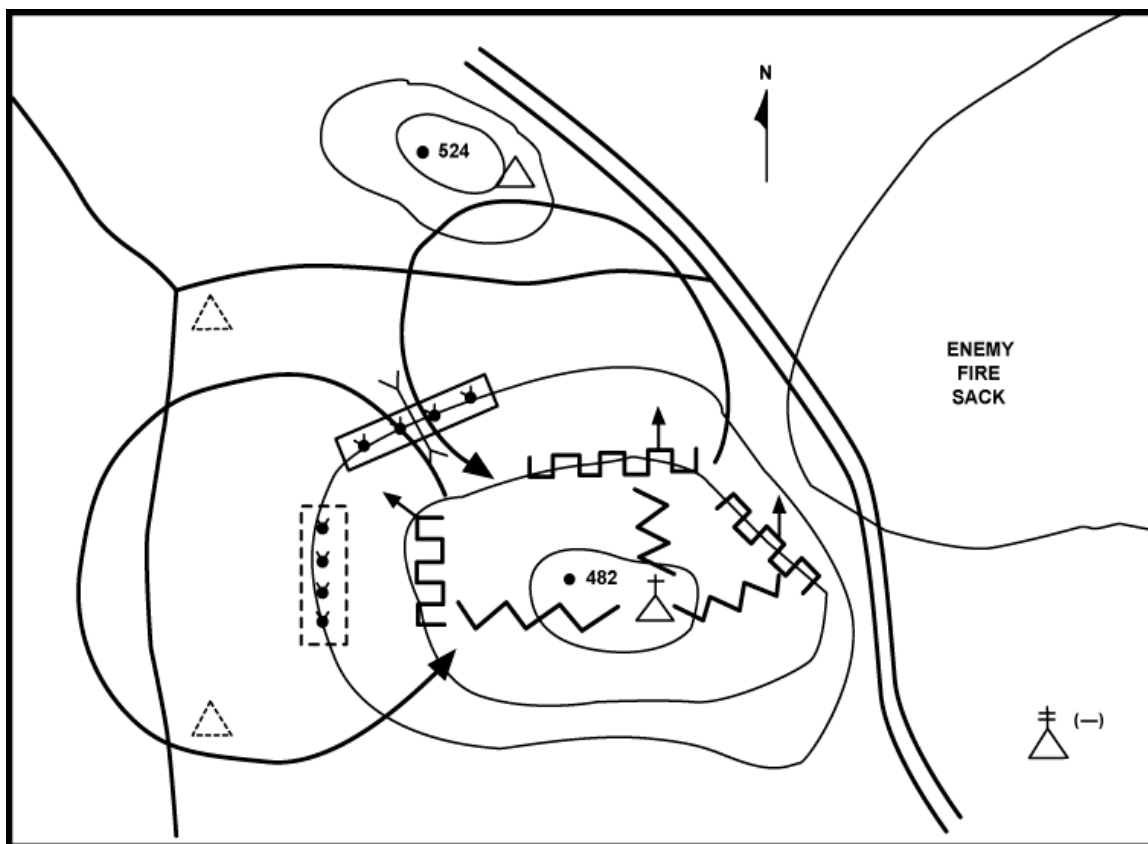

Figure 2-6. Enemy situational template.

NOTE: In addition to a narrative COA statement for the enemy, the commander develops a situational template of how he expects the enemy COA to look. For example, in the offense, a company commander develops a situational template that depicts enemy squads and their fighting positions, individual vehicles, AT weapons, and crew-served weapons. In the defense, the attacking enemy should be templated down to platoon level. His R&S activities, artillery targets, C2 assets, and obstacles should be templated. Also consider how he may employ smoke, chemical agents, CAS, and deception to support his operation.

   f. **Weaknesses**. Identify the enemy weaknesses. Others may result from the war–game process. Determine how to exploit these weaknesses.

2-17. ANALYZE TROOPS AVAILABLE

The CO analyzes his troops available to ensure he knows the current status of his company. He also considers the friendly situation to determine how adjacent and supporting units may affect his mission. The purpose of this step is to identify all available resources and to identify any new limitations resulting from recent fighting. The CO considers his current location, disposition, supply status, and personnel strength. He is particularly concerned with losses to key leaders and weapons, ammunition status, and the morale of his men. The CO considers his current task organization and if any changes are planned. He considers the capability of any attached or supporting units and determines the impact of the company's priority in the battalion's fire priorities. Other considerations include:

- The location of the battalion trains and aid station.
- The locations for the battalion main CP and command group.

2-18. ANALYZE THE TIME

The commander continuously updates his initial estimate of time and the time schedule. He considers the times specified in the battalion order and any other key times that may have resulted from his analysis of the situation. The deductions made here will assist in synchronizing subordinate units. The CO evaluates time and space considerations (the consideration for how specific units will move in a given situation, the time required, the formations used, and so forth) throughout the estimate.

2-19. DEVELOP COURSES OF ACTION

A course of action is a possible plan that accomplishes the company's mission. It is as detailed as necessary to clearly describe how the unit will accomplish the mission and to allow effective war–gaming later in Step 3 of the estimate. It is generally a scheme of maneuver supported by a COA sketch. It describes the employment of the rifle platoons, the antiarmor and mortar sections, and possibly other significant resources, such as attached units, weapons, or engineer support.

    a. Normally two or three courses of action are developed; however, the amount of planning time may limit the CO to only one. In this case the XO may assist by also developing a COA and wargaming the two with the CO. Each COA must be:

- Feasible—It accomplishes the mission and supports the commander's concept.
- Reasonable—The company remains an effective force after completing the mission.
- Distinguishable—It is not just a minor variation of another COA.

    b. During the analysis of the situation, the commander integrates the facts, makes deductions, and analyzes further. Before developing the COAs, he determines the most critical facts and deductions for this mission. These provide greater focus to the COA development process. Examples of these might be:

- Potential decisive points determined from the integration of the terrain and enemy analysis.
- Limited planning time requiring an immediate decision and quick execution.
- A critical ammunition shortage for the machine guns.
- An identified mistake in positioning of enemy weapons, resulting in a major weakness in his defense.

- A complete lack of information on the enemy force.

c. These critical factors, the restated mission statement and the other facts and deductions provide the focus for developing the COAs. Each COA should be developed starting at a potential decisive point. If one has not already been identified, consider the focus of the company's mission statement. If it focuses on—

- Gaining or retaining ground, then determine what terrain is most important. If key or decisive terrain has been identified, the decisive point is probably on this ground.
- Enemy destruction, then determine what the enemy's weakness is. This may result from his organization, his doctrine, or his disposition on the ground. There may be a critical unit, weapon, or asset that is of great importance to the enemy. Its destruction will have a decisive effect on the enemy's ability to generate combat power. A deception task may cause the enemy to react in a way that exposes a weakness. If an obvious weakness is not identified, locate his strengths and plan to avoid these while making an enemy weakness through maneuver or the effect of the company's fires.
- Security of a friendly force, then determine the most vulnerable part of the friendly force. Consider how the enemy may attack that unit. Look for the terrain that will provide an advantage to the enemy. Consider the approaches he will use to get to this terrain. From this analysis, the CO should be able to identify the area of greatest risk and a potential decisive point.

d. Once the CO has identified his potential decisive point(s), he develops his COAs using the following process.

(1) Determine decisive points and times to focus combat power.

(2) Determine the results that must be achieved at the decisive points to accomplish the mission.

(3) Determine the purposes to be achieved by the main and supporting efforts. (The supporting purposes must be clearly linked to the main effort's assigned purpose).

(4) Determine the essential tasks for subordinate units (main and supporting efforts) that achieve these purposes.

(5) Task–organize squads to accomplish each mission that has been determined. (The loss of cohesion when moving a squad to another platoon is critical. Normally, platoons do not cross–attach squads.)

(6) Assign C2 headquarters. (The platoon headquarters, section leaders, XO, 1SG, and other company leaders are used as required.)

(7) Complete a generic task organization by assigning all organic or attached units.

(8) Establish control measures that clarify and support the accomplishment of the platoon's assigned mission. (This may also include critical timings for key events.)

(9) Prepare a COA statement and sketch.

(10) Repeat this process for additional courses of action. (Other COAs may begin with a different potential decisive point, or they may concentrate combat power at the same one using different tasks, purposes, positions, and so forth.)

e. Consider the following while developing courses of action.

(1) Where can risk be taken to enable weighting the main effort? What is the likelihood of this action being overwhelmingly decisive?

(2) What assets are needed for immediate subordinates to achieve their specific tasks and purposes? Ensure the main effort is resourced first. If insufficient resources remain to ensure the supporting efforts' missions are attainable, change the tasks or modify the purpose. Do not take resources from the main effort to reduce risk in less important areas.

(3) Ensure mutual support is achieved. This may be done by the physical positioning of units and weapons in relation to each other, or it may be achieved by the clear linkage of purposes in subordinate's mission statements. Often, during decentralized operations, mutual support between the main and supporting efforts is solely dependent on a clear linkage of purposes in the unit's missions.

(4) What freedom of action do subordinates have? Use control measures (axis, DOA, assault positions, objectives, BPs, sectors, engagement areas...) to synchronize subordinate actions without stifling initiative.

f. The essential part of the COA, dealing with the actions at the decisive point (normally on the objective), has been completed. There may be additional details required to allow a thorough war game of each COA from start to finish. These may include:

- Movement prior to the maneuver at the decisive point or following the decisive action.
- Positioning other assets, such as the CP, mortars, or the company trains, and assigning them missions.
- Establishing additional fire control measures or signals.
- Significant soldiers' load decisions such as leaving the rucksacks, Dragons, or company mortars behind for an attack.

If these details are not needed to clarify the COA or to allow a complete war-game process, they should not be included at this time because they will complicate the war-game process.

g. A sketch of the COA will enhance clarity. The sketch should graphically capture the maneuver aspects of the COA. Proper graphic control measures (see FM 101-5-1) should be used, but additional graphics may also be used to clarify the COA. When using this sketch as a concept sketch (as part of an OPORD), these nonstandard graphics must be explained in a legend. The following scenarios and Figures 2-7 and 2-8 show examples of an offensive and a defensive COA statement and sketch. For additional information on concept sketch development, see Appendix G.

(1) *Offensive course of action.*
- COMPANY MISSION STATEMENT: A Co/2-66 IN(L) attacks at 190600 OCT 89, to seize high ground vicinity NB 459270 (OBJ DOG) to prevent the enemy from disrupting 3-66 IN's (BDE Main Effort) attack.
- COA STATEMENT: The company crosses the LD at 0600 along direction of attack Blue and occupies the ORP. After the leader's reconnaissance, one platoon (2 infantry squads, 2 Dragons, and the 60-mm mortars) occupy a support position vicinity hill 455 to suppress enemy positions to support the company's seizure of OBJ DOG. The antiarmor section (4 Dragons) follows the supporting PLT to checkpoint 1, then it establishes ambush positions vicinity road junction at NB459260 to isolate OBJ DOG. The remaining two platoons (3 squads each) occupy the assault position. The lead platoon seizes the western enemy squad position (OBJ TOOL) to allow the trail platoon to pass through and seize the decisive terrain. The trail platoon (company main

effort) remains in the assault position. On-order, it moves through the lead platoon, seizes the high ground vicinity NB459270 (OBJ BOX) to disrupt the enemy's command and control and to dominate the remaining squad positions. Then it destroys any enemy remaining in these positions to the south and east to prevent the enemy from disrupting 3-66 IN's attack. The 1SG with one infantry squad will follow and support the main effort by resupplying ammunition and evacuating casualties.

(2) *Defensive course of action.*

- MISSION STATEMENT: C Co/2-67 IN(L) is prepared NLT 281700 AUG 93 to destroy enemy forces from GL375651 to GL389650 to GL394660 to GL 373665 to prevent the envelopment of A Co (BN Main Effort).

- COA STATEMENT: The company defends with two PLTs forward in sector and 1 PLT in a depth BP. The PLT (2 squads) forward in the north destroys enemy forces to prevent enemy bypass of the main effort PLT. The PLT (3 squads, 2 Dragons) in sector to the south destroys enemy forces to prevent an organized company attack against the Co main effort. The main effort PLT (3 squads, 2 TOWs) retains Hill 657 (vic. GL 378659) to prevent the envelopment of Co A (BN Main Effort) from the south. The antiarmor section (1 squad, 4 Dragons) establishes ambush positions at the road junction (vic GL 377653) to destroy enemy vehicles to prevent a concentration of combat power against the main effort PLT. The Co mortars locate vic GL 377664. The antiarmor section initiates fires when the enemy combat reconnaissance patrol reaches the intersection.

2-20. ANALYZE THE COURSES OF ACTION

Step 3 of the estimate is the analysis of courses of action. This analysis is conducted by war-gaming the friendly courses of action against the enemy's most probable courses of action. This step of the estimate ensures the COA is viable and that the CO understands how the fight will take place. It clearly shows where the company is taking risks, when/where decisions may be required, and also the advantages and disadvantages of each course of action. Do not begin to compare the friendly COAs at this point in the estimate process. The comparison occurs during Step 4.

a. **Techniques**. Basic techniques for conducting the war game include the box, the belt, and the avenue of approach methods.

(1) *The box*. This method is used to focus the war–game process on a specific area of the battlefield. This may be the objective area, an engagement area, or some other critical area where the decisive action will take place. The leader uses the same action–reaction–counteraction method already discussed, but he limits himself to the actions within the box. The size of the box is determined by the situation, but it should include the units and actions that impact on the decisive action. When time is limited, this technique ensures that the war–game process considers the decisive action, but the disadvantage is that other critical actions/events may not be considered.
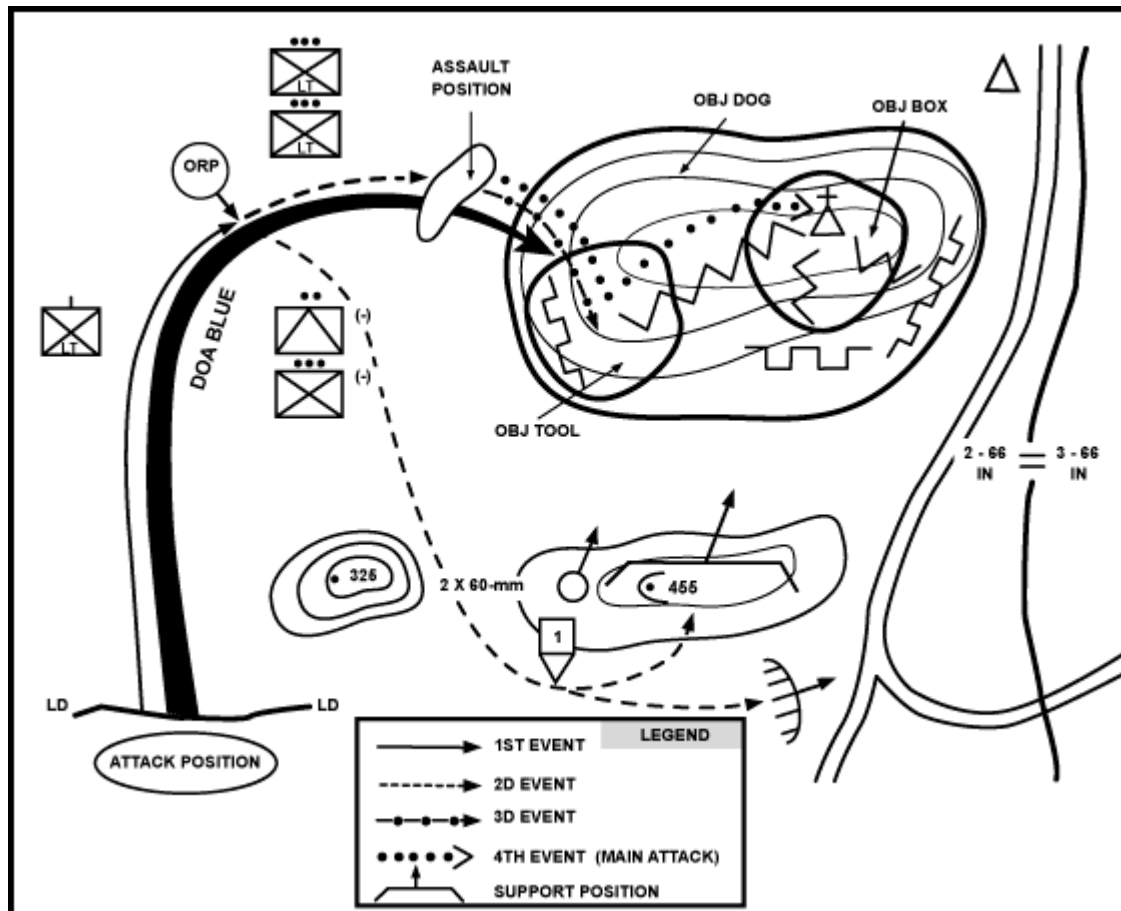
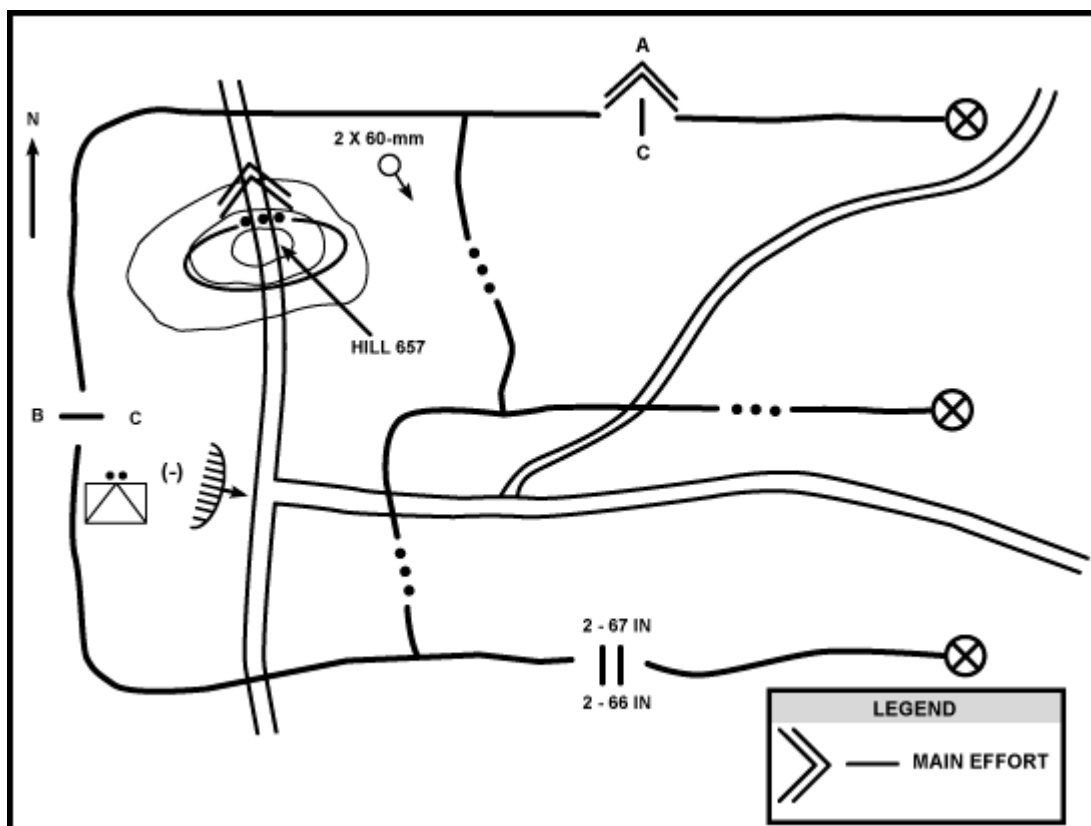**Figure 2-7. Offensive COA sketch.**

Figure 2-8. Defensive COA sketch.

(2) *The belt*. The leader using the belt technique, divides the COA into sections in depth and then war–games each of these belts in sequence. The offensive COA war–game example used the belt technique initially. The COA was divided into the following phases:

- Movement from the AA into the ATTACK POSITION.
- Movement from the LD to the ORP.
- Actions in the ORP.
- Deployment prior to the assault.
- The assault.
- Consolidation.

Each of these phases was war-gamed in sequence. In the example, once the war game reached the assault phase, the box technique was used to war-game the decisive action in detail. This technique may also be used to war-game a defensive COA.

(3) *The avenue of approach*. It is most often used to war-game a defensive COA when there are several avenues of approach that must be considered. The leader war–games the selected COA against the enemy's most probable COA by focusing the process on one avenue of approach at a time.

b. **War Game**. To war–game the friendly COAs against the enemy most probable COA, the CO mentally fights the battle as he expects it to occur. He divides the COAs into a series of actions or events, analyzes each to determine the likely result or reaction, and then considers the likely counteraction. This process of action, reaction, and

counteraction continues until the mission is accomplished or the COA fails. An example for war–gaming an offensive and defensive course of action is provided.

(1) *Offensive COA war game.* This is a war game of the COA presented in paragraph 2-19g(1).

(a) First action: The company moves from the AA into the attack position.

- Enemy reaction: None. Risk of detection is slight.

(b) Second action: The company crosses the LD and moves along DOA BLUE.

- Enemy reaction: Moderate risk of detection at danger area (HWY 27). If detected, the enemy may engage with indirect fires.
- Friendly counteraction: Suppress known enemy position (vic Hill 325) and suspected enemy position (vic NB423243). Break contact and continue movement on DOA BLUE to the ORP.

(c) Third action: Occupy the ORP.

- Enemy reaction: None.

(d) Fourth action: Conduct leader's reconnaissance.

- Enemy reaction: If detected, the enemy will increase the security on his perimeter and possibly increase his patrolling.
- Friendly counteraction: Options include complete the reconnaissance, immediately initiate the artillery preparation and execute the tentative plan, or move to the alternate ORP and issue a FRAGO.

(e) Fifth action: Support and security elements move into position. The company(-) occupies the assault position.

- Enemy reaction: If he detects the company, his options include engaging with direct and indirect fires, repositioning soldiers or vehicles within his perimeter, or withdrawing to an alternate position.
- Friendly counteraction: Initiate the assault once the support element is in position.

(f) Sixth action: Support element initiates fires; the lead platoon breaches the wire.

- Enemy reaction: Returns direct fire on the support element. Requests indirect fires (TOT- 2 minutes if we are on his planned targets, 5-7 minutes if we have avoided them.) Once detected, the breach site will be the enemy leader's main concern. The two positions with good observation will place effective small–arms fire on the breaching element. The enemy will attempt to reposition the eastern squad to the trench vicinity of the breach site.
- Friendly counteraction: The support element repositions as necessary to prevent enemy movement toward the breach site. The close–in support element (with the breaching platoon) suppresses the two enemy positions in vicinity of the breach. The lead PLT seizes a foothold and begins clearing the trench towards the enemy CP. If the breach is unsuccessful due to reinforcement by the enemy eastern squad, the breaching platoon will maintain pressure here while the trail platoon moves to the alternate breach site (vicinity of the enemy's vacated eastern squad position), to conduct a breach and clear toward the enemy CP. On–order, the lead platoon will disengage and follow through the alternate breach site.

(g) Seventh action: The lead PLT seizes its objective and begins to pass through the trail PLT (main effort).

- Enemy reaction: Options include repositioning soldiers, committing his reserve, withdrawing from this position, or counterattacking with another unit.
- Friendly counteraction: Continue the attack. Once the lead platoon has seized its objective, any enemy repositioning will have little effect. If the enemy has a reserve, it should be too small to have much effect. If he attempts to withdraw, the support element (with the FSO) will destroy him. A counterattack is unlikely and would be engaged by the isolation forces, providing at least 15 minutes early warning.

(h) Eighth action: Main effort platoon seizes the dominant terrain and destroys the enemy CP. Both platoons clear their objectives.

- Enemy reaction: Withdraw or wait for outside assistance. His remaining positions are dominated by the high ground (OBJ BOX) seized by the main effort.
- Friendly counteraction: None.

(2) *Defensive course of action war game*. This is a war game for the COA presented in paragraph 2-19g(2).

(a) First action: Enemy divisional or regimental reconnaissance assets arrive in the company sector.

- Friendly reaction: Security forces engage with direct and indirect fires.
- Enemy counteraction: If the reconnaissance unit was destroyed, the enemy may send other assets to replace them. If not destroyed, they will withdraw and attempt to bypass.

(b) Second action: Enemy CRP enters the company sector.

- Friendly reaction: Forward platoons report situation. Confirm enemy most probable COA. Antiarmor section prepares to initiate ambush at intersection.
- Enemy counteraction: None unless the CRP detects the forward platoons or prior reconnaissance has located the company's positions. If so, the enemy will use indirect fires while the CRP determines the company's dispositions.

(c) Third action: The antiarmor section initiates ambush on the CRP. Forward platoons engage enemy in sectors with direct and indirect fires.

- Enemy reaction: CRP seeks cover and reports. Lead companies deploy, return fire, and attempt to fight through forward platoons. Indirect fires called on any friendly concentrations located.
- Friendly counteraction: Avoid decisive engagements. Maintain dispersed formations.

(d) Fourth action: Main effort platoon engages enemy south of hill 657. Priority of fires shift to the main effort.

- Enemy reaction: He attempts to concentrate against the main effort by fixing with direct and indirect fires. Then he conducts a flank attack with dismounted infantry and repositions indirect assets (AGS 17s and BN mortars) to support this attack.
- Friendly counteraction: Forward platoons engage following forces to disrupt the attack against the main effort. Destroy/disrupt C2 and CS assets as they move into sector. Request CAS on enemy concentrating south of hill 657. (Preplanned CAS mission.)

(e) Fifth action: Enemy assault against the main effort platoon. The enemy second echelon battalion may begin moving through forward platoon sectors.

- Friendly reaction: Depends on the combat potential the enemy has positioned to support the assault. Possibly issue a FRAGO to the antiarmor section and the platoon(-) in the northern sector to reorient against the enemy attacking the main effort. Arrival of a second echelon battalion indicates the enemy main attack is in our sector. This is a change to the enemy most probable COA requiring a FRAGO by battalion.

(f) Sixth action: The main effort successfully retains hill 657.

- Enemy reaction: Remnants of the attacking unit occupy defensive positions vicinity hill 657 to reorganize and prepare to assault again or support another unit's assault. If the lead battalion is unsuccessful, it is unlikely that the second echelon battalion will be committed in this sector.
- Friendly counteraction: Issue a FRAGO to focus all available combat power to destroy this enemy force before he can reorganize.

OR

Action: The main effort is unsuccessful in retaining hill 657.

- Enemy reaction: If the enemy attack is successful, he will reorganize and continue the attack. Depending on his losses, he may pass through another company at this time.
- Friendly counteraction: The main effort platoon withdraws to a rally point in the restricted terrain, reorganizes, and interdicts enemy moving north. Forward platoons continue to destroy enemy in sector. The company reports the situation to battalion and continues to operate to disrupt enemy forces moving through sector.

(g) Seventh action: Exploit success of the main effort. (Even if the main effort did not retain hill 657, the enemy combat potential is degraded and his momentum disrupted.) Concentrate combat power against enemy weaknesses exposed throughout the company sector, such as isolated enemy positions, C2, and CS assets.

- Enemy reaction: He will attempt to reorganize to continue the attack.
- Friendly counteraction: Maintain pressure on the enemy throughout the depth of his unit. Use artillery, mortars, and CAS against his strengths.

c. **Information Learned**. Upon completing the war game of each COA, the leader should know its advantages and disadvantages. He also has identified any critical events that will determine the success or failure of each COA. These factors are used during Step 4 to compare the COAs. In addition, the commander now has a much greater appreciation for the conduct of this mission. The CO will use this information later as he expands the selected COA into the tentative plan for his company.

2-21. COMPARE THE COURSES OF ACTION
At Step 4 in the estimate process, the CO compares the COAs and selects the one that is most likely to accomplish the assigned mission. The CO considers the advantages and disadvantages for each COA. He also considers how the critical events impact on each COA. Then he selects significant factors based on this mission; the COAs are then compared using these factors. The CO may also compare the COAs using only the

advantages and disadvantages for each COA. This method is more subjective than using the significant factors that are common to all COAs.

a. **Advantages and Disadvantages**. These are the specific strengths and weaknesses that were noted during the war-game process. They may pertain to the mission, the terrain, the enemy, or any other aspect of the operation. They may apply to just one COA or to all of them.

(1) *Examples of advantages include*:

- Uses the most covered and concealed routes.
- Allows extra time for the leader's reconnaissance.
- Supports the reduction of the soldier's loads.
- Provides an excellent chance of surprise.
- Limits the risk on the secondary approach.

(2) *Examples of disadvantages include*:

- High risk of detection by the enemy's OP.
- Mortar ammunition requirements increase the soldier's loads.
- Time constraint requires daylight movement.
- Does not attack the enemy's weakest point.

b. **Critical Events**. In every operation, there are certain events or activities that will have a major impact on the success of the mission. These may have been identified during the mission analysis, the analysis of the situation, or the war-game process. Normally at company level, these critical events will apply to each COA. The significant factors for the comparison will often result from these critical events. Examples of possible critical events include:

- A forward passage of lines.
- Crossing a major stream en route to the objective.
- Breaching the protective obstacles.
- Gaining a foothold on the objective.
- Evacuating the casualties.
- Defeating the enemy's reconnaissance.
- Controlling the unit's fires into an engagement area.

c. **Significant Factors**. These are common factors that provide the focus for comparing each COA. They are selected for each tactical mission based on mission accomplishment. These factors are significant because they impact directly on the success of the mission. A long list reduces the importance of the most significant factors; therefore, the CO should limit the number of factors to a manageable number. Normally three to seven factors will provide a good comparison. There are two basic types of significant factors, mission-specific and general.

(1) *Mission-specific factors*. These are generated from the requirements for a specific mission. They are often determined by the critical events identified during the war–game process. They may also result from the advantages and disadvantages for each COA. Examples include:

- Casualty evacuation.
- Soldier's load.
- Effectiveness in accomplishing the mission.
- Time usage.

(2) *General factors*. These are for the employment of infantry in all operations. They include the Principles of War, the imperatives of AirLand Battle, the risk involved, the characteristics of the offense or defense, and other such doctrinal guidelines. Although these apply in every tactical operation, certain ones are more important to the mission at hand. The CO determines which these are and then lists them as significant factors for this mission. Examples include:

- Security.
- Simplicity.
- Surprise.
- Exploitation of enemy weaknesses.
- Risk.
- Disruption of the enemy attack.
- Concentration at the decisive point.
- Use of limited visibility.
- Employment of key weapons.

d. **Decision Matrix**. Once the CO has selected the significant factors, he must decide which COA supports each factor the best. The CO compares the COAs using each factor and then makes his decision.

(1) A more detailed technique involves a simple COA decision matrix. This may be required when there are too many factors for the CO to compare. It is important that the CO uses significant factors from his estimate of the situation to develop the matrix. Mission specific factors are used as much as possible. Figure 2-9 provides an example of a COA decision matrix.

(2) There are several ways to use this matrix. The simplest way is to give a + to the COA which best supports each factor. All other COAs would receive a -. Another way is to rank order each COA for each factor. The best COA for each factor receives a 1, next best a 2, and the COA that supports the factor the least would receive a 3. The COA with the lowest sum supports the significant factors best.

2-22. MAKE A DECISION

Step 5 of the estimate process involves making the decision. The CO selects the COA that he believes has the best chance of accomplishing the mission. The results of the comparison in Step 4 assist him in making this decision, but they do not make it for him. The CO may not select the COA that the decision matrix indicates is the best. There may be factors that were not included in the matrix but now have a significant impact on the mission. For example: As he analyzed the troops available in Step 2 and selected his significant factors during Step 4, he was unaware of the current status of his company's physical condition. Upon learning of the extent of his company's fatigue, the CO may decide this is the most significant factor to consider in making this decision. Even if the decision had already been made and orders issued before this new information was determined, the CO should immediately update his estimate and decide what impact this may have on his mission. It is this continuous estimate process that allows the CO to make rapid decisions during the fight.

COAs \\ FACTORS	COA#1	COA#2	COA#3
SURPRISE		●	
FLEXIBILITY	●		
SPEED			●
COMBAT POWER AT THE DECISIVE POINT		●	
USE OF KEY TERRAIN	●		
SOLDIER'S LOAD		●	
TOTAL	2	3	1

Figure 2-9. Course of action decision matrix.

2-23. COMPLETE THE TENTATIVE PLAN

The focus of this process is to generate overwhelming combat power at the decisive point. To do this, the CO positions his units and weapons, assigns them tasks and purposes, allocates resources, designates control measures, and synchronizes activities. He refers back to the deductions from his estimate to complete his plan. To complete the tentative plan, the CO begins with the COA selected at Step 5 of the estimate. He expands this COA into a complete five-paragraph OPORD. The OPORD format is a guide for deciding what information is required to complete the plan.

a. **Task Organization**. The generic task organization from the COA is the basis for this; some changes may have resulted from the war-game process. The CO refers to the task organization in the battalion order and ensures all assets under his control are included in his plan. The CO takes the generic task organization from the COA and develops a specific task organization that assigns squads and weapons to each of his platoons. An example of a company task organization follows:

1st PLT(-)   2d PLT   3d PLT
   1&2 Tms/AA SEC

AA SEC(-)   Co Control
                                      60-mm SEC
                                      1/1st PLT

    b. **Enemy Situation**. The enemy situation in the BN OPORD (paragraph 1a) is the basis for this, but the CO refined this to provide the detail required by his subordinates. The CO considers the results of his enemy analysis to determine the information he includes in his paragraph 1a. This may include the enemy's composition, disposition, strength, recent activities, and capabilities. He also includes the enemy's most probable COA, which was used in the war-game process. A sketch or enemy overlay should be included.

    c. **Friendly Situation**. This information is found in paragraphs 1b, 2, and 3 in the BN OPORD. The BN mission and concept are stated in paragraphs 2 and 3a respectively. The units adjacent to the company (left, right, front, and rear) are found on the operations overlay. Their mission statements are found in both paragraph 1b (adjacent BNs) and 3a (adjacent Cos). Units supporting the company will be found in the battalion task organization and in paragraphs 1b (external to the BN) and paragraph 3 (BN assets).

    d. **Mission Statement**. The company mission statement was determined at Step 1 of the estimate. It is normally clearly stated in paragraph 3 of the BN OPORD.

    e. **Concept of the Operation**. This paragraph describes how the CO intends to accomplish his mission. At company level, a maneuver and fires subparagraph will always be included. When needed to clarify the concept or to ensure synchronization, additional subparagraphs, such as engineering, EW, intelligence, and counterair operations may be included. The operations overlay/concept sketch is referenced here.

    (1) *Maneuver.* The maneuver paragraph should be focused on the decisive action. It may, however, describe the maneuver throughout the operation. At company level, a maneuver paragraph that assigns the missions to each platoon/section and identifies the main effort normally requires no additional clarification. When additional information is required to clarify the concept, the CO may insert this information in the concept of the operation paragraph. Information such as movement formations and techniques, or the order of movement, should only be included if it clarifies the concept. Normally, the coordinating instructions paragraph is the appropriate location for this type of information.

    (2) *Fires.* This paragraph describes how the CO intends for the fires to support his maneuver. The company FSO may prepare this paragraph based on the CO's guidance. This paragraph normally states the purpose to be achieved by the fires, the priority of fires for the company, and the allocation of any priority targets. A target list or overlay may be referenced here. Specific taskings for the company mortars should only be stated here if they clarify the concept of the operation.

    (3) *Engineering.* Often, especially in defensive operations, this paragraph is required to clarify the CO's concept for preparing obstacles, mines and fortifications. When the company is supported by engineer equipment or units, the CO would state his guidance for employing these assets here. He may do this by stating the priority of effort

(survivability, countermobility, and mobility) and the priority of support for his subordinates (3d PLT, 1st PLT, AA section, 2d PLT, mortar section, and the CP).

f. **Tasks to Maneuver Units**. This paragraph lists the tasks/limitations for each of the platoons and sections. Each of these subordinate units will have a separate paragraph. The information included here comes from two sources–the tasks and limitations identified during the mission analysis and from the war game process.

(1) The tasks from the mission analysis may require only one subordinate unit to complete them. In this case, the CO decides which unit should do this task and assigns it. Examples of these tasks are listed.

- Provide one squad to carry ammunition for the battalion mortar platoon.
- Establish an OP at NB233876 NLT 231000.

Others may require two or more subordinate units or even the entire company to comply with them. In this case, the CO would list these tasks or limitations in the coordinating instructions.

(2) Most of these requirements result from the war game of the COA. They include—

- How to synchronize the operation.
- How to secure the company throughout the operation.
- How to concentrate the combat potential at decisive points.
- How to manage the soldier's load.
- How to degrade the enemy's combat potential.

To accomplish each of these requirements, the CO assigns specific taskings to each of his units. He also assigns specific limitations to certain subordinates. These may be listed here or noted on the company operations overlay/concept sketch.

g. **Tasks to Combat Support Units**. The 60-mm LWCM section and other CS units (engineers, ADA, and so forth) are addressed here.

h. **Coordinating Instructions**. These are requirements that apply to two or more subordinate units. These also may have been assigned by battalion or required based on the COA developed by the company CO. If they do not apply to all the subordinate units, then clearly state those units that must comply. Examples might be:

- MOPP4 in effect at 160730 MAR 94.
- The company time schedule.
- 2d and 3d PLT will each carry 30 mortar rounds.
- The consolidation plan.
- The BN rehearsal is at 211500 DEC 91.

i. **Service Support**. This paragraph provides the critical logistical information required to sustain the company during the operation. Most of this information is extracted from the battalion OPORD. There are also certain requirements generated from the company commander's concept. These may include:

- The location for the company trains.
- The casualty evacuation plan.
- Instructions for caching rucksacks, supplies, or other equipment.
- The resupply plan.

j. **Command and Signal**. This paragraph states where the C2 facilities and key personnel will be located during the operation. It includes the following information from the BN OPORD that subordinates require.

(1) Locations for the BN main CP and the command group.

(2) Critical communication requirements, such as radio listening silence in effect forward of the LD.

(3) Signals for specific events or actions. The company concept will have similar requirements for the company commander to include. These may include:

- The locations for the CO or CP, and the XO.
- Adjustments to the unit SOP, such as a change to the succession of command or the standard PZ markings.
- Emergency/visual signals for critical actions.
- Signal information.

NOTE: The tentative plan should stand alone and have essential information so that it can be issued and executed if time does not permit physical reconnaissance to verify.

Section IV.   CONTINUOUS OPERATIONS

Continuous operations are combat operations that continue around the clock at a high pace, requiring soldiers to fight without letup for extended periods. Opportunities for sleep are scattered throughout the day and night. (See FM 22-9.) Sustained operations are operations conducted 24 hours a day with little or no opportunity for sleep.

2-24.   SUSTAINED OPERATIONS

Sustained operations are when the same soldiers or small units engage in combat operations with no opportunity for the unit to stand down and little time for soldiers to sleep. Infantry units must routinely plan to conduct sustained operations.

2-25.   DEGRADATION OF COMBAT CAPABILITY

As sustained operations continue, all soldiers begin to show effects of general fatigue and lack of sleep. Unless counteracted, unit performance of combat tasks decline. Recent studies indicate performance is degraded by 25 percent for each 24–hour period without sleep. After 96 hours, performance can be expected to be near zero. Determination to endure must be supplemented by countering the adverse effects to slow the rate of decline. It becomes more difficult to perform assigned tasks to the required standard. Leaders need to recognize signs of serious sleep deprivation in their subordinates.

   a. Studies show that the performance in all duty positions does not degrade the same. Performance in a duty position where there is a heavy load of mental tasks (determining, calculating, thinking, decision-making) degrades faster than the performance in a position whose tasks are mainly physical (firing, running, lifting, digging).

b. In addition to the degradation caused by fear, fatigue, and loss of sleep, there is a significant loss of effectiveness caused by operation in MOPP4. When units are using full NBC protective equipment, judgment is degraded, communications are less effective, and information flow between units is reduced.

2-26. TECHNIQUES TO SUSTAIN OPERATIONS

To maintain effectiveness, adverse conditions of sustained operations must be overcome. The following are methods the commander can use to reduce degradation, develop the required abilities in soldiers, and prepare his unit to fight sustained operations.

a. **Build Individual Soldier Resources**. Preventive measures are often more effective for keeping groups healthy and active. They include improving or maintaining good physical condition, balanced nutrition, and immunizations.

b. **Provide Good Leadership**. Leadership is the keystone for sustained unit performance.

c. **Set High Standards**. Achieving success during sustained operations demands the highest standards of military professionalism.

d. **Develop Individual Confidence**. It is easier for units to withstand the adverse conditions of sustained operations if they maintain an optimistic, confident outlook. Confidence is the strongest bulwark against stress and performance degradation.

e. **Establish Reliable Communication Channels**. In combat, knowledge of the situation and the status of both enemy and friendly units sustains soldiers.

f. **Cross-train**. This helps ensure that someone is always available to perform a critical task or to help perform it. Criticality of tasks should determine the priority for cross-training.

g. **Develop Coping Skills**. Coping with stress is an important combat skill in sustained operations. (See FM 26-2.) Severe problems may develop after several days if leaders and soldiers do not sleep at least 4 hours every 24 hours. Ideally, the 4 hours should be continuous.

h. **Develop Good Physical Fitness**. Being physically fit strengthens the ability to recover from exhaustion.

i. **Build Stamina**. Fit soldiers withstand the stresses of sustained operations better.

j. **Foster a Spirit and Attitude of Winning**. In sustained operations, a genuine and single-minded dedication often gives the extra strength needed to win.

k. **Foster Cohesion, Esprit, Morale, and Commitment**. Cohesion holds units together; esprit keeps them dedicated to the mission. Unit cohesion and esprit are key sources of strength for enduring the stresses of sustained operations.

l. **Guarantee and Encourage the Free Exercise of Soldier's Faith**. Regardless of their religious background, most soldiers are reassured and calmed if the commander encourages and assists the battalion chaplain in his visits to the unit.

2-27. UNIT SLEEP PLAN
The commander must ensure his unit can conduct both sustained and continuous operations. The only way a unit can conduct CONOPs is that all soldiers and leaders get enough rest.

a. The CO must devise and enforce a work–rest–sleep plan for the company. It must include provisions for leaders as well as soldiers to sleep. Priority for sleep should go to those whose judgment and decision-making are critical to mission accomplishment.

b. The plan should allow soldiers at least 4 to 5 hours of sleep each 24 hours; this will sustain performance for several days. Six to 8 hours of sleep can sustain performance indefinitely.